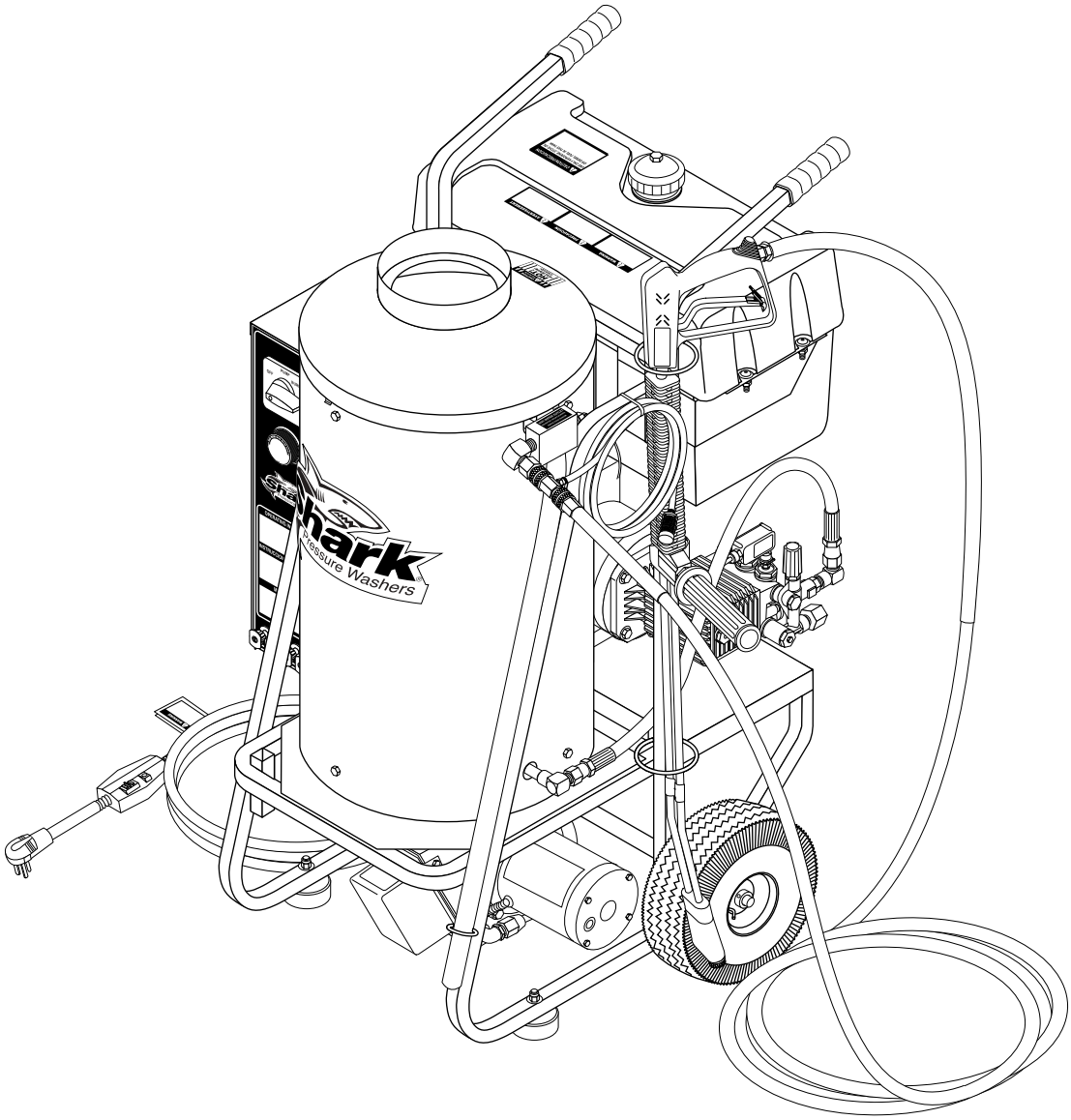
# MODEL: HPB

## OPERATING INSTRUCTION AND PARTS MANUAL

■ HPB-2011 ■ HPB-3520 ■ HPB-3530 ■ HPB-4020

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**or visit our website at www.shark-pw.com**

97-6131

# MACHINE SPECIFICATIONS

- **Pump Volume At Pump Head:**

| | |
|---|---|
| **2010** | 2.0 GPM |
| **2011** | 2.0 GPM |
| **2015** | 2.0 GPM |
| **3010** | 2.5 GPM |
| **3016** | 2.5 GPM |
| **3520** | 3.5 GPM |
| **3530** | 3.5 GPM |
| **4020** | 4.2 GPM |

- **Pump Pressure At Pump Head:**

| | |
|---|---|
| **2010** | 1000 PSI |
| **2011** | 1000 PSI |
| **2015** | 1400 PSI |
| **3010** | 1000 PSI |
| **3016** | 1600 PSI |
| **3520** | 2000 PSI |
| **3530** | 3000 PSI |
| **4020** | 2000 PSI |

- **Machine Voltage:**

| | |
|---|---|
| **2010** | 120V/1PH |
| **2011** | 120V/1PH |
| **2015** | 120V/1PH |
| **3010** | 120V/1PH |
| **3016** | 230V/1PH |
| **3520** | 230V/1PH |
| **3530** | 230V/1PH |
| **4020** | 230V/1PH |

- **Total Machine Amperage:**

| | |
|---|---|
| **2010** | 15 Amps |
| **2011** | 15 Amps |
| **2015** | 20 Amps |
| **3010** | 20 Amps |
| **3016** | 18 Amps |
| **3520** | 22 Amps |
| **3530** | 29 Amps |
| **4020** | 29 Amps |

- **Shipping Weight:**

| | |
|---|---|
| **2010** | 320 Lbs. |
| **2011** | 300 Lbs. |
| **2015** | 320 Lbs. |
| **3010** | 325 Lbs. |
| **3016** | 330 Lbs. |
| **3520** | 340 Lbs. |
| **3530** | 515 Lbs. |
| **4020** | 515 Lbs. |

- **Machine Dimensions:**

| | | | |
|---|---|---|---|
| **2010** | Length = 28" | Width = 28" | Height = 43" |
| **2011** | Length = 31" | Width = 23" | Height = 40" |
| **2015** | Length = 28" | Width = 28" | Height = 43" |
| **3010** | Length = 28" | Width = 28" | Height = 43" |
| **3016** | Length = 28" | Width = 28" | Height = 43" |
| **3520** | Length = 28" | Width = 28" | Height = 43" |
| **3530** | Length = 41" | Width = 32" | Height = 44" |
| **4020** | Length = 41" | Width = 32" | Height = 44" |

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**SERIAL NUMBER:**

**DATE PURCHASED:**

**FOR SALES AND SERVICE, PLEASE CONTACT:**

# INTRODUCTION

Thank you for purchasing a hot water pressure washer.

This manual covers the operation and maintenance of the Mini Series, Junior Series, and Senior Series of this pressure washer. All information in this manual is based on the latest product information available at the time of printing.

We reserve the right to make changes at any time without incurring any obligation.

## Owner/User Responsibility:

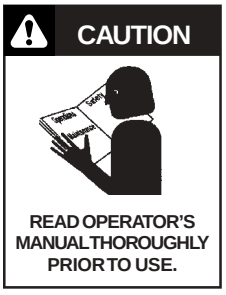
The owner and/or user must have an understanding of the manufacturer's operating instructions and warnings before using this pressure washer. Warning information should be emphasized and understood. If the operator is not fluent in English, the manufacturer's instructions and warnings shall be read to and discussed with the operator in the operator's native language by the purchaser/owner, making sure that the operator comprehends its contents.

Owner and/or user must study and maintain for future reference the manufacturers' instructions.

**This manual should be considered a permanent part of the machine and should remain with it if machine is resold.**

**When ordering parts, please specify model and serial number.**

# IMPORTANT SAFETY INFORMATION




***CAUTION: To reduce the risk of injury, read operating instructions carefully before using.***

1. Read the owner's manual thoroughly. Failure to follow instructions could cause malfunction of the machine and result in death, serious bodily injury and/or property damage.
2. All installations must comply with local codes. Contact your electrician, plumber, utility company or the selling distributor for specific details.

   To comply with National Electrical Code (NGPA 70) and provide additional protection from risk of electric shock, this hot water converter is equipped with a UL approved ground fault circuit interrupter (GFCI) power cord.

***WARNING: Flammable liquids can create fumes which can ignite causing property damage or severe injury.***

***WARNING: Do not use gasoline, crankcase drainings or oil containing gasoline, solvents or alcohol. Doing so will result in fire and/or explosion.***

***WARNING: Do not spray flammable liquids. Operate only where an open torch is permitted.***

3. This fuel burning machine shall be installed only in locations where combustible dusts and flammable gases or vapors are not present.
4. In these oil burning models, use only kerosene, No.1 home heating fuel, or diesel fuel.

***WARNING: Keep water spray, wand and high pressure hose away from electrical wiring or fatal electric shock may result. Read warning tag on electrical cord.***

5. To protect the operator from electrical shock, the machine must be electrically grounded. It is the responsibility of the owner to connect this machine to a UL grounded receptacle of proper voltage and amperage ratings. Do not spray water on or near electrical components. Do not touch machine with wet hands or while standing in water. Always disconnect power before servicing.

***CAUTION: Spray gun kicks back — hold with both hands.***

6. Grip cleaning wand of attached pressure washer securely with both hands before starting cleaner. Failure to do this could result in injury from a whipping wand.

***WARNING: High pressure stream of fluid that this equipment can produce can pierce the skin and its underlying tissues, leading to serious injury and possible amputation.***

7. High pressure developed by the attached pressure washer can cause bodily injury or damage. Use caution when operating. Do not point the spray gun at anyone or at any part of the body. This machine is to be used only by qualified operators.
8. Never make adjustments on machine while it is in operation.

***WARNING: High pressure spray can cause paint chips or other particles to become airborne and fly at high speeds.***

9. Eye safety devices must be worn when using this equipment.

***WARNING: Risk of asphyxiation — Use this product only in a well ventilated area.***

10. When the machine is working, do not cover or place in a closed space where ventilation is insufficient.

***WARNING: Risk of fire. Do not add fuel when the machine is operating or still hot.***

11. Machines with a spray gun should not be operated with the spray gun in the off position for extended periods of time as this may cause damage to the pump. Check to make sure burner shuts off when spray gun trigger is closed.
12. Protect from freezing.
13. To prevent a serious injury, make certain quick coupler on discharge hose has locked before using pressure washer.
14. Do not allow acids, caustic or abrasive fluids to pass through the pump.
15. Inlet water must be cold and clean fresh water.
16. Do not allow CHILDREN to operate the pressure washer at any time. **THIS MACHINE MUST BE ATTENDED DURING OPERATION.**
17. The best insurance against an accident is precaution, and knowledge of the machine.
18. Do not operate this product when fatigued or under the influence of alcohol or drugs. Keep operating area clear of all persons.
19. We will not be liable for any changes made to our standard machines, or any components not purchased from us.
20. Do not overreach or stand on unstable support. Keep good footing and balance at all times.
21. Follow the maintenance instructions specified in the manual.
22. When making repairs disconnect from electrical source.
23. Before disconnecting high pressure hose from hot water outlet, turn off burner to allow water to cool to 100°F, then turn off pump motor and water supply and operate spray gun to relieve back pressure in hose. This will prevent coil damage from thermal expansion.

***CAUTION: This machine produces hot water and must have insulated components attached to protect the operator.***

# INSTALLATION

Place machine in a convenient location providing ample support, draining and room for maintenance.

**This machine is intended for indoor use. Machine must be stored indoors when not in use.**

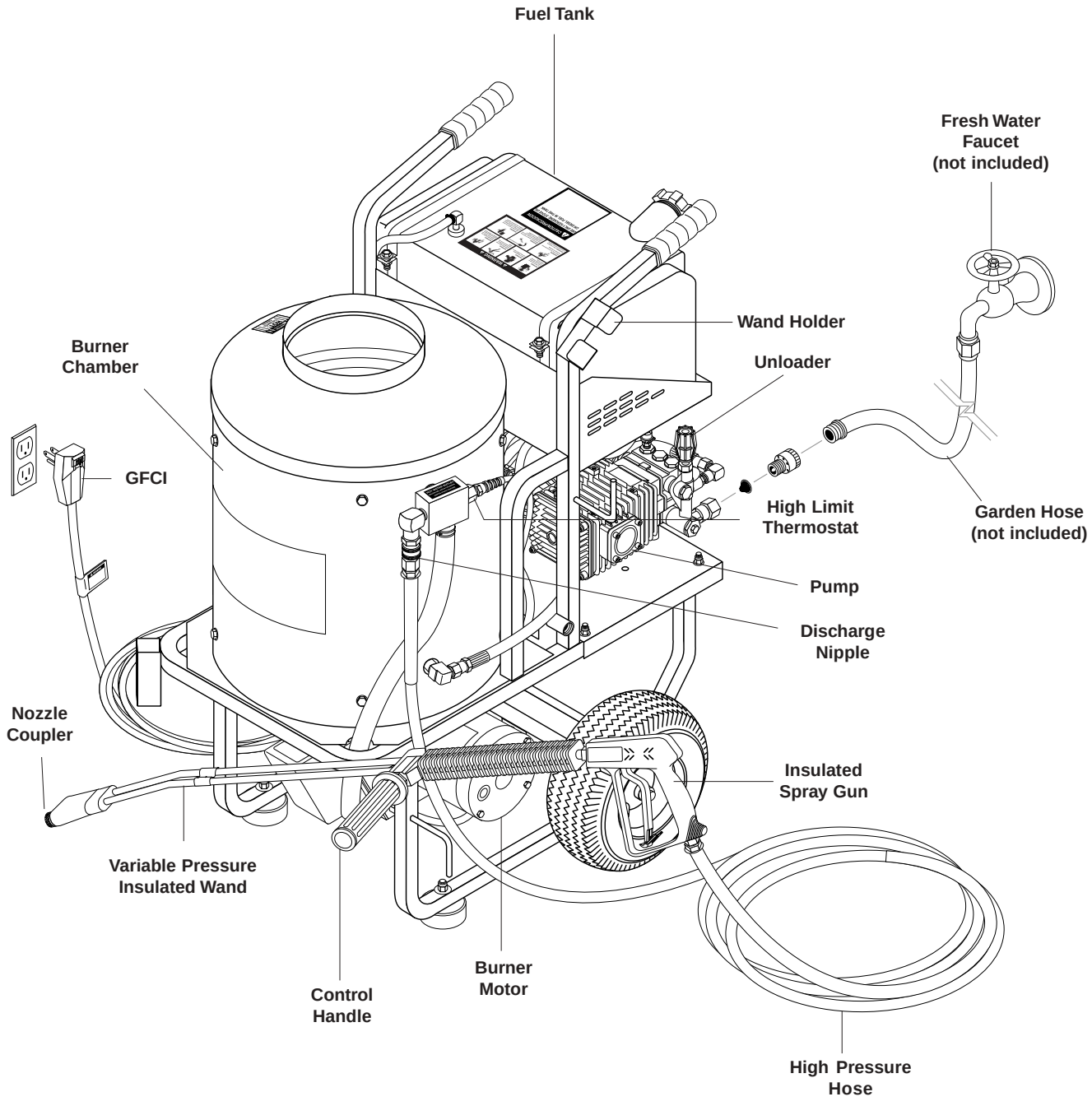
## Location:

The location should protect the machine from damaging environmental conditions, such as wind, rain, and freezing.

1. This machine should be run on a level surface where it is not readily influenced by outside sources such as strong winds, freezing temperatures, rain, etc. It should be located to allow accessibility for refilling of fuel, adjustments and maintenance. Normal precautions should be taken by the operator of the machine to prevent moisture from reaching the electrical controls.
2. It is recommended that a partition be made between the wash area and the machine to prevent water spray from coming in contact with the machine. Excess moisture reaching any electric components or electrical controls will reduce machine life and may cause electrical shorts.
3. During installation of the machine, beware of poorly ventilated locations or areas where exhaust fans may cause an insufficient supply of oxygen. Sufficient combustion can only be obtained when there is a sufficient supply of oxygen available for the amount of fuel being burned. If it is necessary to install a machine in a poorly ventilated area, outside fresh air may have to be piped to the burner and a fan installed to bring air into the machine.

**Avoid small locations or areas near exhaust fans.**

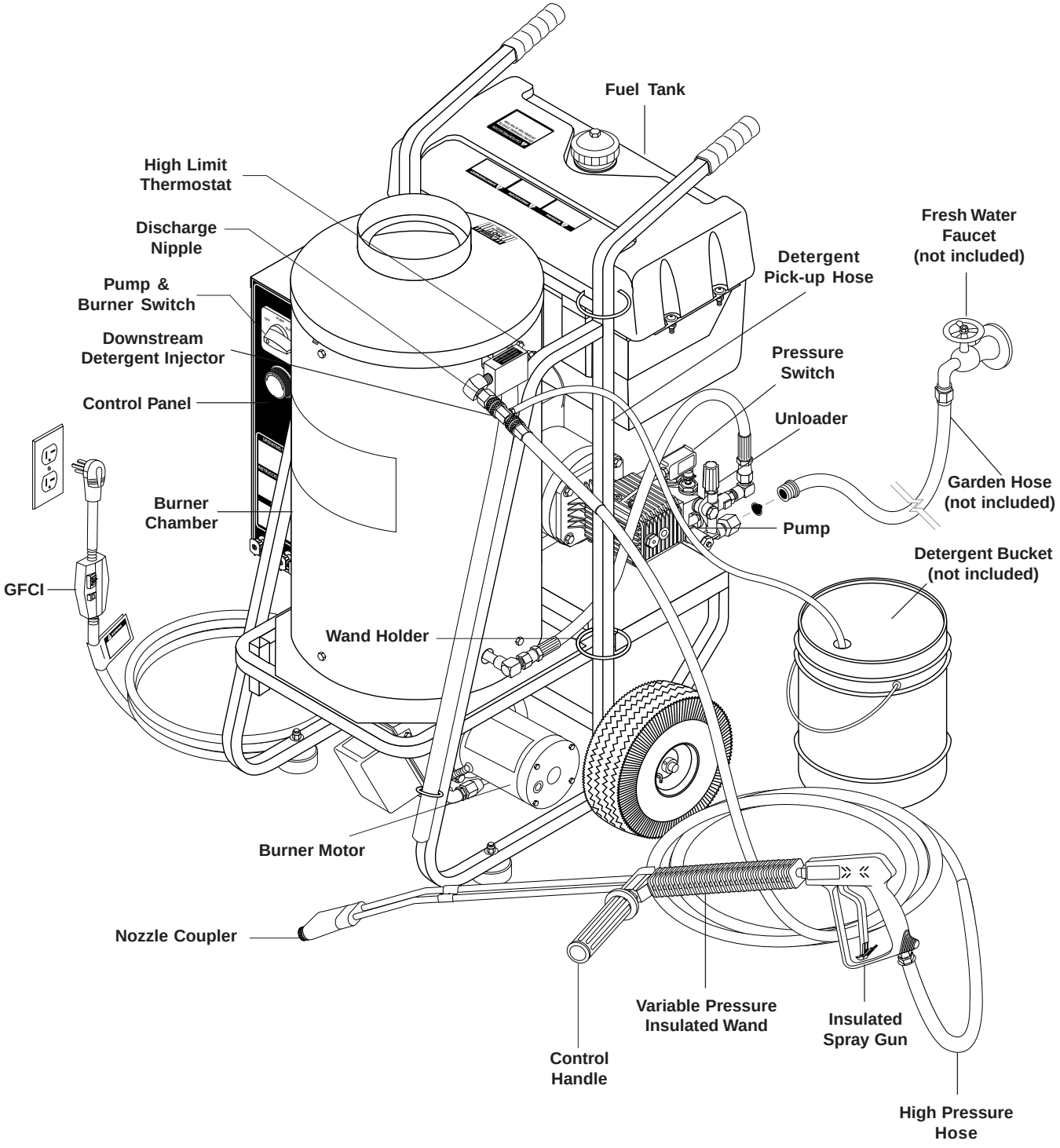
## COMPONENT IDENTIFICATION
### MINI SERIES



## COMPONENT IDENTIFICATION

### JUNIOR SERIES

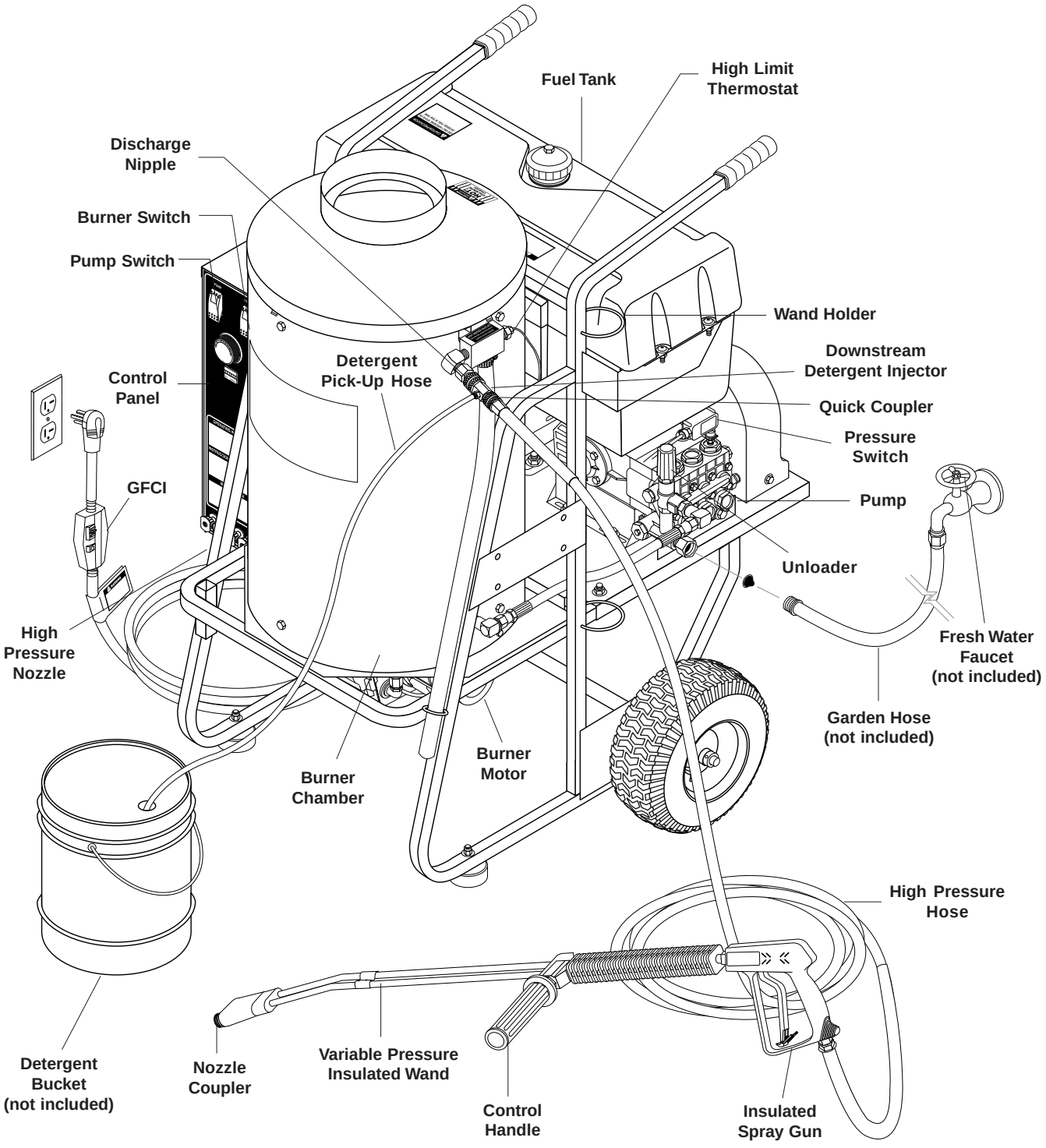
***CAUTION HOT WATER:***
***Must use insulated spray gun and wand.***



## COMPONENT IDENTIFICATION

### SENIOR SERIES

***CAUTION HOT WATER:***
***Must use insulated spray gun and wand.***



### Electrical:

This machine, when installed, must be electrically grounded in accordance to local codes. Check for proper power supply using a volt meter.

### Placement:

Do not locate near any combustible material. Keep all flammable material at least 20 feet away.

Allow enough space for servicing the machine.

Local code will require certain distances from floor and walls. (Two feet away from walls should be adequate.)

### Water Source:

The water source for the pressure washer should be supplied by a minimum 5/8" I.D. garden hose with a city water pressure of not less than 30 PSI. If the water supply is inadequate, or if the garden hose is kinked, the attached pressure washer will run very rough and the burner will not fire.

### Connection:

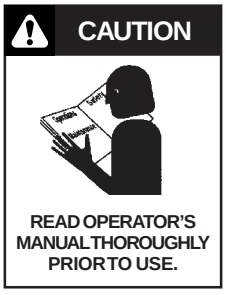
Connect the wand, nozzle, hose and spray gun (where applicable). On pipe thread connections, use teflon tape to avoid water leaks. (See Component Identification).

### Venting:

Adding exhaust vent pipe to your oil fired burner is not recommended because restricted air flow causes carbon build-up, which affects the operation, and increases maintenance on the coil. If a stack must be used, refrain from using 90° bends. If the pipe can not go straight up then use only 45° bends and go to the next size pipe. The overall pipe length must not exceed 6 feet in length.

## STARTING AND OPERATING INSTRUCTIONS

### To Start:




1. **STOP!** Read operator's manual before operating. Failure to read operation and warning instructions may result in personal injury or property damage.
2. Connect water supply hose and turn on water.
3. Check fuel tank and pump oil levels.
4. Connect high pressure hose to discharge nipple by sliding quick coupler collar back. (If detergent is to be applied, insert a detergent injector as shown in Component Identification).
5. Insert quick coupler onto discharge nipple and secure by pushing quick coupler collar forward.
6. Securely attach the desired high pressure nozzle into wand coupler as described in steps 4 and 5.
7. Connect the power cord into the proper electrical outlet, then push in the GFCI reset button. (Refer to serial plate for information.)
8. Grip spray gun handle securely and pull trigger. Then turn variable pressure control handle counterclockwise.
9. Turn switch to pump position. When a steady stream of water flows from the spray gun and wand the machine is ready for cold water cleaning by turning the variable pressure control handle clockwise to raise the pressure.
10. For hot water washing, turn the switch to the burner position. (The burner will light automatically when the trigger on the spray gun is pulled.)

### To Stop:

1. If using the detergent injector, place the detergent hose in a bucket of water allowing detergent to be flushed from system.
2. Turn burner switch off and continue spraying water, allowing the water to cool.
3. After water has cooled to less than 100°F, turn the attached pressure washer off.
4. Turn garden hose water off. Open the spray gun to relieve remaining pressure.
5. Protect from freezing.

## OPTIONAL EQUIPMENT

### Auto Start/Stop Timer Operation

Once the pump switch is turned on, simply triggering the spray gun is all it takes to start the machine. Once the trigger is released the timer will let the machine bypass water for 15 seconds. It also starts an internal 5 to 60 minute lockout timer. This feature is totally adjustable by the operator by adjusting the knob at the top of the timer. We recommend setting the timer for 15 minutes. To reset the lockout feature, operator must trigger the spray gun for 10 full seconds.

## PREVENTATIVE MAINTENANCE

1. Use clean fuel — kerosene, No. 1 home heating fuel or diesel fuel. Clean or replace fuel filter every 100 hours of operation. Avoid water contaminated fuel as it will seize up the fuel pump. De-soot coils monthly. Use an additive if diesel is being used.
2. Check to see that the attached pressure washer water pump is properly lubricated.
3. Follow winterizing instructions to prevent freeze damage to pump and coils.
4. Always neutralize and flush detergent from system after use.

5. If water is known to be high in mineral content, use a water softener on your water system, or de-scale as needed.
6. Do not allow acidic, caustic or abrasive fluids to be pumped through the system.
7. Always use high grade quality cleaning products.
8. Never run attached pressure washer pump dry for extended periods of time.
9. If machine is operated with smoky or eye burning exhaust, coils will soot up, preventing water from reaching maximum operating temperature. (See section on Maintenance and Service).
10. Never allow water to be sprayed on or near the motor or burner assembly or any electrical component.
11. Delime coils as per instructions.

It is advisable, periodically, to visually inspect the burner. Check air inlet to make sure it is not clogged or blocked. Wipe off any oil spills and keep equipment clean and dry.

The areas around the pressure washer should be kept clean and free of combustible materials, gasoline and other flammable vapors and liquids.

The flow of ventilating air to the burner must not be blocked or obstructed in any manner.

# MAINTENANCE AND SERVICE

## Unloader Valves:

Unloader valves trap pressure in the line when a shut-off spray gun is closed. Machines with unloader valves are preset and tested at the factory before shipping. Occasional adjustment of the unloader may be necessary to maintain correct pressure.

## Winterizing Procedure:

Damage due to freezing is not covered by warranty. Adhere to the following cold weather procedures whenever the washer must be stored or operated outdoors under freezing conditions.

During winter months, when temperatures drop below 32°F, protecting your machine against freezing is necessary. Store the machine in a heated room. If this is not possible then mix a 50/50 solution of anti-freeze/water or windshield washer fluid with water in a 5 gallon bucket. Place a short section of garden hose into the bucket and connect it to the machine. Elevate the bucket and turn the pump on to siphon the anti-freeze through the machine. If compressed air is available, an air fitting can be screwed into the inlet connector and by injecting compressed air, all water will be blown out of the system.

If you have an optional float tank, pour the antifreeze into this tank and run machine until antifreeze exits discharge nipple.

## High Limit Hot Water Thermostat:

For safety, each machine is equipped with a high limit control switch. In the event the temperature of the water should exceed its operating temperature, the high limit control will turn the burner off until the water cools.

## Pumps:

Use only SAE 30 weight non-detergent oil. Change oil after first 50 hours of use. Thereafter, change oil every three months or at 500 hour intervals. Oil level should be checked by using the dipstick found on the top of the pump or by the red dot visible through the oil gauge window. Oil should be maintained at that level.

## Cleaning of Coils:

In alkaline water areas, lime deposits can accumulate rapidly inside the coil pipes. This growth is increased by the extreme heat build up in the coil. The best prevention for liming conditions is to use high quality cleaning detergents. In areas where alkaline water is an extreme problem, periodic use of deliming powder will remove lime and other deposits before coil becomes plugged.

## Deliming Coils With A Pressure Washer:

Periodic flushing of coils is recommended.

**Step 1** Fill a 5 gallon bucket with 4 gallons of water, then add 1 lb. of deliming powder. Mix thoroughly.

**Step 2** Remove the high pressure nozzle from the pressure wand and put the wand into the bucket. Secure the trigger on the spray gun into the open position.

**Step 3** Attach a short section (3-5 ft.) of garden hose to the attached pressure washer to siphon solution from the elevated bucket. Start up pressure washer, allowing solution to be pumped through pressure washer and into HPB coils and back into the bucket. Solution should be allowed to circulate 2-4 hours.

**Step 4** After circulating solution flush entire system with fresh water.

## Removal of Soot In Heating Coil:

In the heating process, fuel residue in the form of soot deposits may develop between the heating coil pipe and block air flow which will affect burner combustion. When soot has been detected on visual observation, the soot on the coil must be washed off after coil has been removed using the following steps:

1. Remove the tank head assembly by unscrewing the three tek screws and lifting the tank head off.
2. Remove the two pipe nipples and associated fittings.
3. Lift the coil out of the outer wrap.

***CAUTION: The coil weighs about 80 lbs. Use proper lifting techniques.***

4. Clean, repair and replace the coil by reversing the above steps.

## Coil Reinstallation

Reinstall by reversing the above steps 4 through 1.

## Rupture Disk

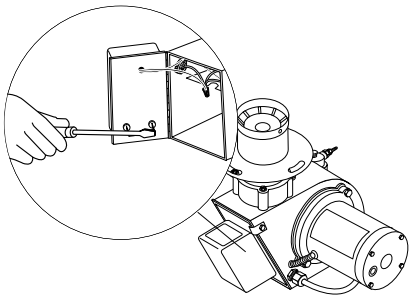
If pressure from pump or thermal expansion should exceed safe limits, the rupture disk will burst, allowing high pressure to be discharged through hose to ground. When the disk ruptures, it will need to be replaced.

## Fuel:

Use clean fuel oil that is not contaminated with water and debris. Replace fuel filter and drain tank every 100 hours of operation. Use Kerosene No. 1 or No. 2 Heating Fuel (ASTM D306) or diesel only. **NEVER** use gasoline in your burner tank. Gasoline is more combustible than fuel oil and could result in a serious explosion. **NEVER** use crankcase or waste oil in your burner. Fuel unit malfunction could result from contamination.

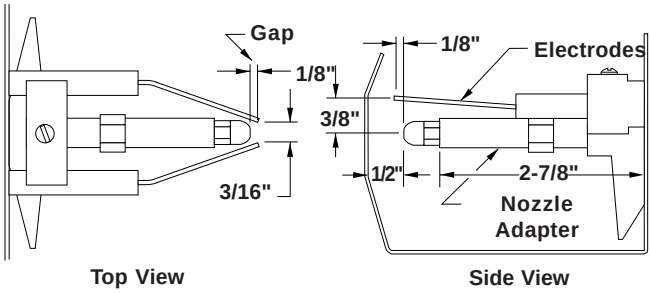
## Ignition Circuit:

Periodically inspect wires, spring contact and electrodes for condition, security and proper spacing. **For transformer test (CAUTION 10,000 VOLTS)** use defect free insulated screwdriver and keep fingers off blade! Lay blade across one contact: OK if arc will span 1/2" between end of blade and other contact.



## Electrode Setting - Wayne:

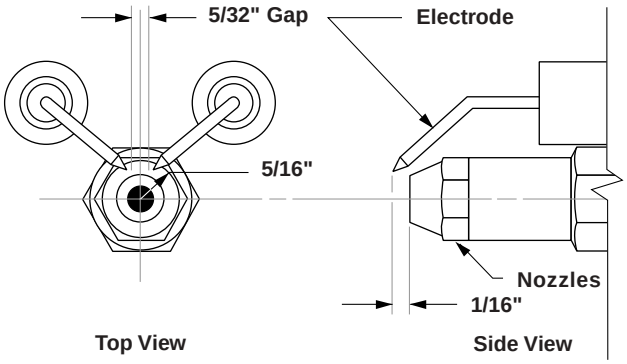
(See illustration below)




**Electrodes Check: Periodically check wiring connections. If necessary to adjust electrodes, use diagram.**

## Electrode Setting - Beckett:

(See illustration below)




**Electrodes Check: Periodically check wiring connections. If necessary to adjust electrodes, use diagram.**

## Burner Nozzle:

Keep the tip free of surface deposits by wiping it with a clean, solvent-saturated cloth, being careful not to plug or enlarge the nozzle. For maximum efficiency, replace the nozzle each season.

## Fuel Control System:

This machine utilizes a fuel solenoid valve located on the fuel pump to control the flow of fuel to the combustion chamber. This solenoid is activated by a pressure switch located on the unloader valve. When an operator releases the trigger on the spray gun, the pressure drops, allowing the pressure switch to activate the fuel solenoid. The solenoid then closes, shutting off the supply of fuel to the combustion chamber. Controlling the flow of fuel in this way gives an instantaneous burn or no burn situation, thereby eliminating high and low water temperatures, and combustion smoke normally associated with machines incorporating a spray gun. Periodic inspection is recommended to insure that the fuel solenoid valve functions properly. This can be done by operating the machine and checking to see that when the trigger on the spray gun is in the off position, the burner is not firing.

## Fuel Pressure Adjustment:

To adjust fuel pressure, turn the adjusting screw with a standard screwdriver (located on the fuel pump) clockwise to increase, counterclockwise to decrease. Do not exceed 200 PSI.

### Air Adjustment

Machines are preset and performance tested at the factory — elevation 100' above sea level. A one time correction for your location will pay off in economy, performance and extended service life. If a smoky or eye-burning exhaust is being emitted from the stack, two things should be checked.

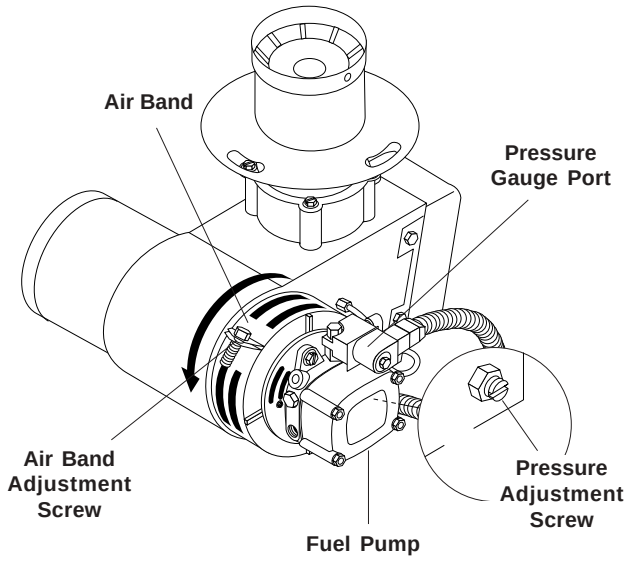
First, check the fuel to be certain that kerosene or No. 1 home heating fuel is being used.

Next, check the air adjustment on the burner. An oily, black, smoky fire indicates a lack of air and the air band should be moved to allow the air to flow through the burner. Sharp, eye-burning white fumes indicate too much air flowing through the combustion chamber. The air band should be moved to allow less air to flow through the burner.

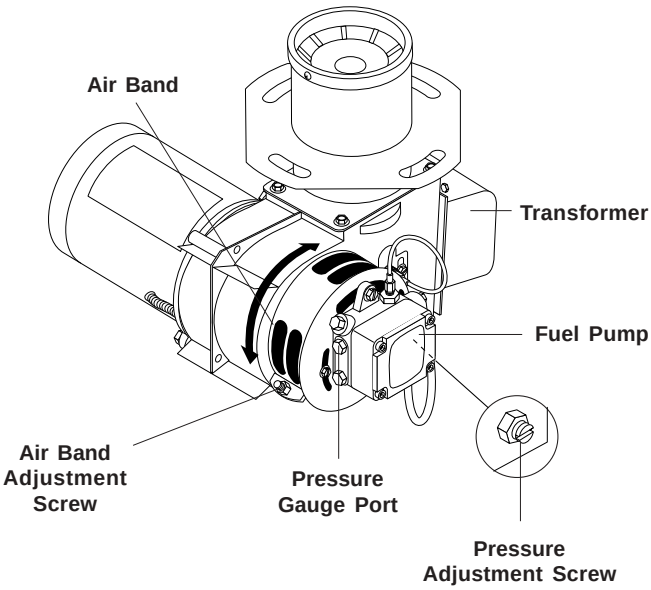
**To adjust:** start machine and turn burner ON. Loosen the two locking screws found in the air shutter openings (refer to illustrations) and close air shutter until black smoke appears from burner exhaust vent. Note air band position. Next, slowly open the air shutter until white smoke just starts to appear. Turn air shutter halfway back to the black smoke position previously noted. Tighten locking screws.

If the desired position cannot be obtained using only the air shutter, lock the air shutter in as close a position as can be obtained, then repeat the above procedure on the air band setting.

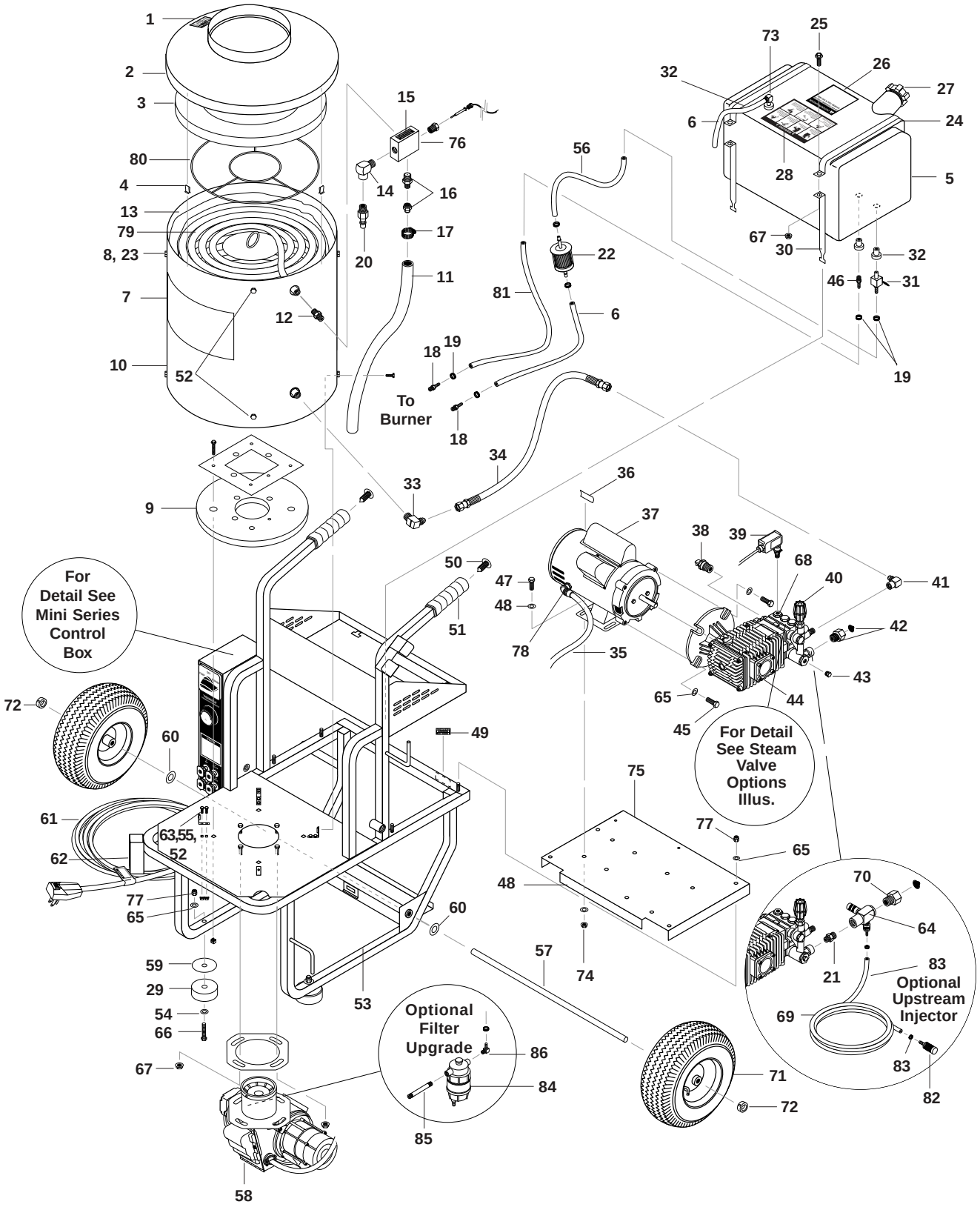
## FUEL AIR ADJUSTMENT: WAYNE




## FUEL AIR ADJUSTMENT: BECKETT



## MINI SERIES
### EXPLODED VIEW



## MINI SERIES
### EXPLODED VIEW PARTS LIST

| ITEM | PART NO. | DESCRIPTION | QTY |
|---|---|---|---|
| 1 | 10-02025A | Label, Hot/Caliente w/Arrows Warning | 1 |
| 2 | 95-07290029 | Tank Head Assy | 1 |
| 3 | 7-014862 | Insulation, Top Head | 1 |
| 4 | 90-50045 | Clip, Retaining U-Type | 4 |
| 5 | 2-0115090 | Tank, Fuel 6 Gal Blank | 1 |
| 6 | 4-02100000 | Hose, 1/4", Push-On, Fuel Line (16") | 2 |
| 7 | 11-013 | Label, Logo, Large | 1 |
| | 11-014 | Label, Logo, Large | 1 |
| 8 | 90-19710 | Screw, 1/4" x 3/4" HH NC, Whiz Loc | 4 |
| 9 | 7-014861 | Insulation, Bottom | 1 |
| 10 | 95-07102249 | Coil Wrap | 1 |
| 11 | 4-02130050 | Hose, 7/8" Push-On, Conduit | 2 ft |
| 12 | 2-0008 | Nipple, 1/2" Hex Steel | 1 |
| 13 | 7-01487 | Insulation, Blanket | 1 |
| 14 | 2-0031 | Elbow, 3/8" Street, 90° | 1 |
| 15 | 10-09004 | Label, Hot Water Outlet | 1 |
| 16 | 2-3408 | Disk, Rupture Assy, 8000 PSI | 1 |
| 17 | 2-90041 | Clamp, Screw, #16 Micro | 1 |
| 18 | 2-1085 | Hose Barb, 1/4" Barb x 1/4" ML Pipe | 2 |
| 19 | 2-9040 | Clamp, Hose, UNI .46-.54 | 4 |
| 20 | 2-2007 | Nipple, 3/8" x 3/8" NPT ST Male | 1 |
| 21 | 2-1058 | Nipple, 1/2" Pipe x 3/8" Pipe | 1 |
| 22 | 2-99031 | Filter, Diesel Fuel, Disposable | 1 |
| 23 | 90-2022 | Nut, Cage, 1/4" x 16 GA | 4 |
| 24 | 95-07102247 | Fuel Strap, Long | 2 |
| 25 | 90-1996 | Screw, 3/8" x 3/4" HH NC, Whiz | 2 |
| 26 | 10-020110 | Label, Use Only Kerosene | 1 |
| 27 | 2-011576 | Cap, Non-Vented, Plastic | 1 |
| 28 | 11-1043 | Label, Warning, Pictorial | 1 |
| 29 | 2-01041 | Pad, Soft Rubber, 50 DURO | 2 |
| 30 | 95-07102248 | Fuel Strap, Short | 2 |
| 31 | 2-30057 | Valve, 1/4" Shut-Off | 1 |
| 32 | 2-010061 | Bushing, Rubber, Nitrile | 2 |
| 33 | 2-0053 | Elbow, 1/2" JIC, 3/8", 90° | 1 |
| 34 | 4-02047732 | Hose, 3/8" x 32", 2 Wire, Pressure Loop | 1 |
| 35 | 6-01041 | Cord, Service, SEO, 12/3, Coleman | 3.66 ft |
| 36 | 10-99078 | Label, Motor Overload Reset, Lexan | 1 |
| 37 | See Pages 34 & 35 for Motor Details | | |
| 38 | 2-30082 | Pump Protector, 1/2" PTP (201107) | 1 |
| | 2-300816 | Pump Protector, 3/8" PTP (201101) | 1 |
| 39 | 6-021720 | Switch, Pressure N/O, 1/4" NPT SS | 1 |
| 40 | See Pages 34 & 35 for Pump/Unloader Details | | |
| 41 | 2-00601 | Elbow, 1/2" JIC x 3/8" Fem | 1 |
| 42 | 2-10942 | Swivel, 1/2" MP x 3/4" GHF, w/Strainer (201107) | 1 |
| | 2-10943 | Swivel, 3/8" MP x 3/4" GHF w/Strainer (201101) | 1 |
| 43 | 2-1046 | Plug, 1/4" Countersunk (201107) | 1 |
| | 2-1044 | Plug, 1/8" Countersunk (201101) | 1 |
| 44 | See Pages 34 & 35 for Pump/Unloader Details | | |
| 45 | 90-1016 | Bolt, 3/8" x 1", NC HH | 4 |
| 46 | 2-10866 | Hose Barb, 1/4" x 3/8" Double | 1 |
| 47 | 90-1006 | Bolt, 5/16" x 3/4" NC GR 5 CS ZN | 4 |
| 48 | 90-4001 | Washer, 5/16", Flat, SAE | 8 |
| 49 | 10-09003 | Label, Cold Water Inlet, HS | 1 |
| 50 | 2-0155 | Fastener, Ratchet, Black Nylon | 2 |
| 51 | 2-01103 | Grip, 1" Sqr, Handle | 2 |
| 52 | 90-19711 | Screw, 1/4" x 1/2" HH NC, Whiz Loc | 12 |
| 53 | 95-07102218 | Assy, Frame | 1 |
| 54 | 90-40125 | Washer, 3/8" x 1" | 2 |
| 55 | 90-20231 | Nut, Cage, 1/4" x 12 GA | 8 |
| 56 | 4-02100000 | Hose, 1/4" Push-On (21") | 1 |
| | 6-0516 | ▲ Strain Relief, 1/2" Metal, Two Screw (Burner Assembly) | 1 |
| | 6-01011 | ▲ Cord, Service, SEO, 16/4, Coleman | 4.25 ft |

## MINI SERIES

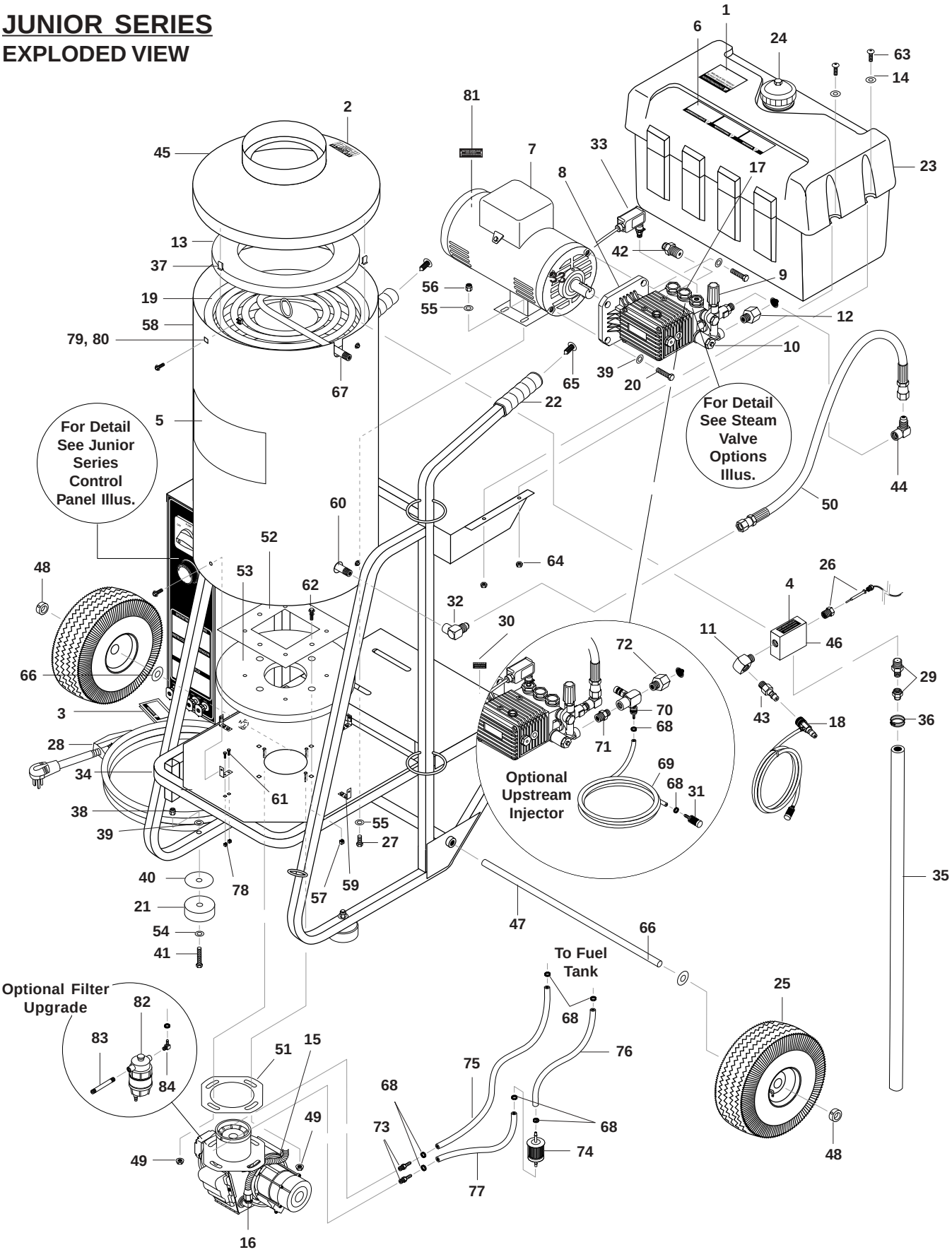
### EXPLODED VIEW PARTS LIST (CONTINUED)

| ITEM | PART NO. | DESCRIPTION | QTY |
|---|---|---|---|
| 57 | 95-07102311 | Axle, 5/8" x 22" | 1 |
| 58 | Burner Assembly, See Burner Spec's Page 32 | | |
| 59 | 90-4015 | Washer, 7/16" x 2-1/2", Zinc, PG Foot | 2 |
| 60 | 90-4005 | Washer, 5/8", Flat, SAE | 2 |
| 61 | 6-01060 | GFCI, 120V 20A, w/36' 12-3 Cord | 1 |
| 62 | 10-08018 | Label, Warning, Service Cord | 1 |
| 63 | 95-07290007 | Outer Wrap Tabs | 4 |
| 64 | 3-1007 | Injector, Adjustable Inlet | 1 |
| 65 | 90-4002 | Washer, 3/8", SAE, Flat | 10 |
| 66 | 90-10201 | Bolt, 3/8" x 2-1/4", HH, GRD.5 | 2 |
| 67 | 90-20040 | Nut, 3/8", Flange Whiz Loc, NC | 4 |
| 68 | 15-070042532 | Cap, Valve, with 1/4" Gauge Port (201107) | 1 |
| | 1-190031 | Cap, Valve, with 1/4" Gauge Port (201101) | 1 |
| 69 | 4-02080000 | Tube, 1/4" x 1/2", Clear Vinyl | 6 ft |
| 70 | 2-10943 | Swivel, 3/8" MP x 3/4" GHF w/Strainer | 1 |

| ITEM | PART NO. | DESCRIPTION | QTY |
|---|---|---|---|
| 71 | 4-0303 | Wheel & Tire Assy, 4" Steel Rim w/Tube | 2 |
| 72 | 90-20041 | Collar, 5/8" Bore Shaft 3010 | 2 |
| 73 | 2-010066 | Elbow, Fuel Tank, Zinc | 1 |
| 74 | 90-2001 | Nut, 5/16" ESNA, NC | 4 |
| 75 | 95-07102217 | Assy, Power Platform, Mini | 1 |
| 76 | 95-07101225 | Block, Discharge, Brass 3/8" x 1/2" | 1 |
| 77 | 90-2002 | Nut, 3/8", ESNA, NC | 6 |
| 78 | 6-0515 | Connector, Flex, 90°, 3/8" (Motor) | 1 |
| 79 | 95-07102310 | Assy, Coil | 1 |
| 80 | 95-07104506 | Insulation Retainer Ring, 16" | 1 |
| 81 | 4-02100000 | Hose, 1/4" Push On (28") | 1 |
| 82 | 2-1905 | Strainer, 1/4" Brass | 1 |
| 83 | 2-9040 | Clamp, Hose, UNI .46 - .54 | 2 |
| 84 | 35-156 | Fuel Filter Uprgrade Option (Items 84-86) | |
| | 2-99050 | Filter, Fuel Oil, $H_20$ | 1 |
| 85 | 2-0012451 | Nipple, 1/4" x 3" Black Pipe | 1 |
| 86 | 2-1089 | Hose Barb, 1/4" Barb x 1/4" Pipe, 90° | 1 |

▲ Not Shown

## JUNIOR SERIES
### EXPLODED VIEW


For Detail See Junior Series Control Panel Illus.
For Detail See Steam Valve Options Illus.
Optional Upstream Injector
Optional Filter Upgrade
To Fuel Tank

## JUNIOR SERIES
### EXPLODED VIEW PARTS LIST

| ITEM | PART NO. | DESCRIPTION | QTY |
|---|---|---|---|
| 1 | 10-020110 | Label, Use Only Kerosene | 1 |
| 2 | 10-02025A | Label, "Hot/Caliente" with Arrows Warning | 1 |
| 3 | 10-08018 | Label, Warning, Service Cord | 1 |
| 4 | 10-09004 | Label, Hot Water Outlet | 1 |
| 5 | 11-013 | Label, Logo Large | 1 |
| | 11-014 | Label, Logo, Large | |
| 6 | 11-0101 | Label, Warning (Lexan) | 1 |
| 7 | See Pages 34 & 35 for Motor Details | | |
| 8 | See Pages 34 & 35 for Pump/Unloader Details | | |
| 9 | See Pages 34 & 35 for Pump/Unloader Details | | |
| 10 | 2-1046 | Plug, 1/4" (Legacy) | 1 |
| | 2-1044 | Plug, 1/8" (General) | 1 |
| 11 | 2-0031 | Elbow, 3/8" Street | 1 |
| 12 | 2-10943 | Swivel, 3/8" x 3/8" GHF w/Strainer (General) | 1 |
| | 2-10942 | Swivel, 1/2" MP x 3/4" GHF w/Strainer (Legacy) | 1 |
| 13 | 7-014832 | Tank Head Insul. | 1 |
| 14 | 90-40001 | Washer, 1/4" | 4 |
| 15 | 6-0128 | Conduit, 25" | 1 |
| 16 | 6-051591 | Connector 1/2" L/T 90° Black | 1 |
| 17 | 1-190031 | Cap, Valve w/1/4" Port (General) | 1 |
| | 15-070042532 | Cap. Valve w/1/4" Port (Legacy) | 1 |
| 18 | 4-011183 | Downstream Injector Assy, Non-Adjust #2 (2010, 2015, 3016) | 1 |
| | 4-011184 | Downstream Injector Assy, Non-Adj #3 (2011, 3010, 3520, 3530, 4020) | 1 |
| 19 | 95-07121218 | Coil, Heating, Jr | 1 |
| 20 | 90-1016 | Bolt, 3/8" x 1" | 4 |
| 21 | 2-01041 | Pad, Soft Rubber, 50 Duro | 2 |
| 22 | 2-01103 | Grip, 1" SQR, Handle | 2 |
| 23 | 2-011506 | Tank Fuel, 9 Gallon Poly, Black | 1 |
| 24 | 2-01167 | Cap, Fuel Tank Plastic H60-AV | 1 |
| 25 | 4-0303 | Wheel & Tire, 4" Steel Rim w/Tube | 2 |
| 26 | 4-05088 | Adjustable Thermostat | 1 |

| ITEM | PART NO. | DESCRIPTION | QTY |
|---|---|---|---|
| 27 | 90-1006 | Bolt, 5/16" x 3/4" | 4 |
| 28 | 6-01059 | GFCI, 240V 1PH 30A w/36' 10-3 Cord (352007, 352001) | 1 |
| | 6-01060 | GFCI, 120V, 20A w/36' 12-3 Cord (201007, 201001, 201507, 201501, 301007, 301001) | 1 |
| | 6-010631 | GFCI, 240V 1 PH 20A, w/36' 12-3 Cord (301607, 301001) | 1 |
| 29 | 2-3408 | Disk, Rupture Assy, 8000 PSI | 1 |
| | 2-3480 | Rupture Disk Replacement, 8000 PSI | 1 |
| 30 | 10-09003 | Label, Cold Water Inlet HS | 1 |
| 31 | 2-1905 | Strainer, 1/4" Brass (Option) | 1 |
| 32 | 2-00602 | Elbow, 1/2" JIC x 1/2" FM | 1 |
| 33 | 6-021720 | Pressure Switch, 1/4" | 1 |
| 34 | 95-07102242 | Frame, Junior | 1 |
| 35 | 4-02130050 | Hose, 7/8" | 2.33 ft. |
| 36 | 2-90041 | Clamp, Screw #16 | 1 |
| 37 | 90-50045 | Clip, Retainer | 5 |
| 38 | 90-2002 | Nut, 3/8" ESNA | 2 |
| 39 | 90-4002 | Washer, 3/8" Flat | 6 |
| 40 | 90-4015 | Washer, 3/8" x 2-1/2" | 2 |
| 41 | 90-10201 | Bolt, 3/8" x 2-1/4" | 2 |
| 42 | 2-300816 | Pump Protector, 3/8" General Pump Assembly | 1 |
| | 2-30082 | Pump Protector, 1/2" Legacy Pump Assembly | 1 |
| 43 | 2-2007 | Coupler Plug, 3/8" Male | 1 |
| 44 | 2-00601 | Elbow, 1/2" JIC x 3/8" Fem | 1 |
| 45 | 95-07290029 | Tank Head Assembly 16" x 8" | 1 |
| 46 | 95-07101225 | Block Discharge 3/8" x 1/2" | 1 |
| 47 | 95-07102205 | Axle, 5/8" x 27" | 1 |
| 48 | 90-20041 | Collar, 5/8" | 2 |
| 49 | 90-20040 | Nut, 3/8" Flange, Whiz Loc | 4 |
| 50 | 4-02047729 | Hose, 3/8" x 29", Press Loop | 1 |
| 51 | Burner Assembly, See Burner Spec's Page 32 | | |
| 52 | 95-07290053 | Retainer, Burner Insulation | 1 |
| 53 | 7-01482 | Insulation, Tank Bottom, 1" Blanket | 1 |
| 54 | 90-40125 | Washer, 3/8" x 1" | 2 |
| 55 | 90-4001 | Washer, 5/16", Flat | 8 |

## JUNIOR SERIES

### EXPLODED VIEW PARTS LIST

| ITEM | PART NO. | DESCRIPTION | QTY |
|---|---|---|---|
| 56 | 90-2001 | Nut, 5/16", ESNA | 4 |
| 57 | 90-2020 | Nut, Cage, 3/8" x 12 GA | 4 |
| 58 | 95-07200129 | Wrap, Outer Coil, Red | 1 |
| 59 | 95-0729007 | Tab, Outer Wrap | 4 |
| 60 | 2-00091 | Nipple, 1/2" x 3", Galv. | 1 |
| 61 | 90-19711 | Screw, 1/4" x 1/2", Whiz Loc | 12 |
| 62 | 90-19960 | Screw, 3/8" x 1-1/4" Whiz Loc | 4 |
| 63 | 90-19980 | Screw, 1/4" x 1" | 4 |
| 64 | 90-200012 | Nut, 1/4" Flange | 4 |
| 65 | 2-0155 | Fastener, Ratchet, Black Nylon | 2 |
| 66 | 90-4005 | Washer, 5/8" Flat | 2 |
| 67 | 2-00101 | Nipple, 1/2" x 4", Galv. | 1 |
| 68 | 2-9040 | Clamp,Hose UNI .46-.54 | 6 |
| 69 | 4-02080000 | Tube, 1/4" x 1/2", Clear Vinyl, (Option) | 6 ft |
| 70 | 3-1007 | Injector, Adjustable Inlet (Option) | 1 |
| 71 | 2-1058 | Nipple, 1/2" Pipe x 3/8" Pipe (Option) | 1 |
| 72 | 2-10943 | Swivel, 3/8" MP x 3/4" GHF | 1 |
| 73 | 2-1085 | Hose Barbs | 2 |
| 74 | 2-99031 | Fuel Filter | 1 |
| 75 | 4-02100000 | Fuel Line, 1/4" | 28 in. |
| 76 | 4-02100000 | Fuel Line, 1/4" | 6 in. |
| 77 | 4-02100000 | Fuel Line, 1/4" | 21 in. |
| 78 | 90-20231 | Nut, Cage, 1/4" x 12 Gauge | 8 |
| 79 | 90-2002 | Nut, Cage, 1/4" x 16 Gauge | 5 |
| 80 | 90-19710 | Screw 1/4" x 3/4" HH NC Whiz Loc | 5 |
| 81 | 10-99078 | Label, Motor Overload Reset | 1 |
| 82 | 35-156 | Fuel Filter Uprgrade Option (Items 82-84) | |
| | 2-99050 | Filter, Fuel/Oil/$H_2O$ | 1 |
| 83 | 2-0013451 | Nipple, 1/4" x 3" | 1 |
| 84 | 2-1089 | Hose Barb, 1/4" Barb x 1/4" Pipe 90° | 1 |

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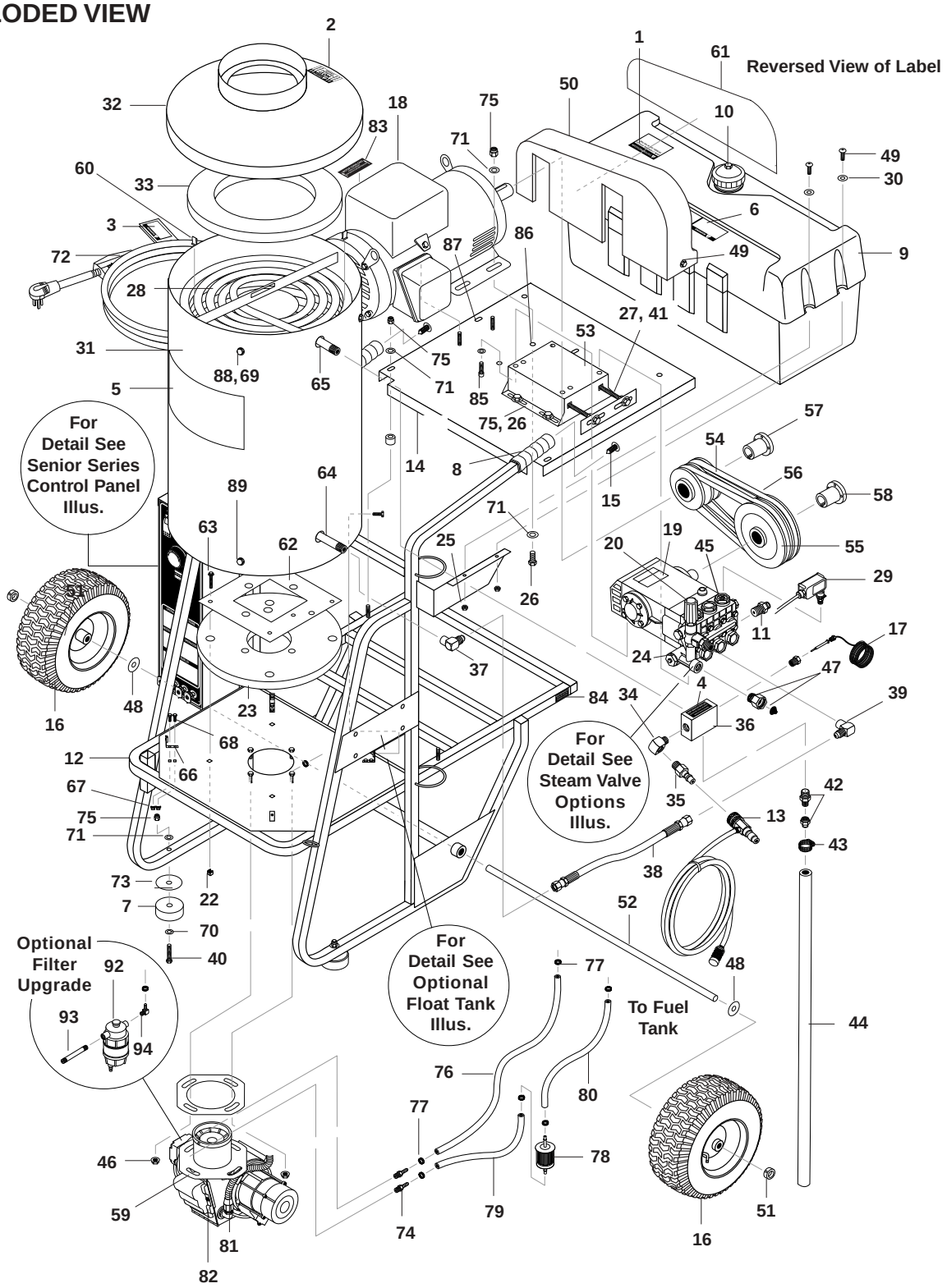
## SENIOR SERIES

### EXPLODED VIEW


Reversed View of Label
For Detail See Senior Series Control Panel Illus.
For Detail See Steam Valve Options Illus.
For Detail See Optional Float Tank Illus.
Optional Filter Upgrade
To Fuel Tank

## SENIOR SERIES
### EXPLODED VIEW PARTS LIST

| ITEM | PART NO. | DESCRIPTION | QTY |
|---|---|---|---|
| 1 | 10-020110 | Label, Use Only Kerosene | 1 |
| 2 | 10-02025A | Label, "Hot/Caliente" with Arrows Warning | 1 |
| 3 | 10-08018 | Label, Warning, Service Cord | 1 |
| 4 | 10-09004 | Label, Hot Water Outlet | 1 |
| 5 | 11-013 | Label, Logo, Large | 1 |
| | 11-014 | Label, Logo Large | 1 |
| 6 | 11-0101 | Label, Warning (Lexan) | 1 |
| 7 | 2-01041 | Pad, Soft Rubber, 50 Duro | 2 |
| 8 | 2-01103 | Grip, 1" SQR, Handle | 2 |
| 9 | 2-011506 | Tank, Fuel, 9 Gallon Poly, Black | 1 |
| 10 | 2-01167 | Cap, Fuel Tank, Plastic H60-AV | 1 |
| 11 | 2-30082 | Pump Protector, 1/2" PTP | 1 |
| 12 | 95-07102241 | Frame | 1 |
| 13 | 4-011184 | Downstream Injector Assy., Non Adj. #3 | 1 |
| 14 | 95-07102243 | Power Platform (402001, 402007) | 1 |
| | 95-07102245 | Power Platform, Large (353001, 353007) | 1 |
| 15 | 2-0155 | Fastener, Ratchet Black Nylon | 2 |
| 16 | 4-0307 | Wheel & Tire, 6" Steel Rim | 2 |
| 17 | 4-05088 | Thermostat, General 302 DGR | 1 |
| 18 | See Pages 34 & 35 for Motor Details | | |
| 19 | See Pages 34 & 35 for Pump/Unloader Details | | |
| 20 | See Pages 34 & 35 for Pump/Motor Details | | |
| 21 | 2-10943 | Swivel, 3/8" MP x 3/4" GHF w/Strainer | 1 |
| 22 | 90-2020 | Nut, Cage, 3/8" x 12 GA | 4 |
| 23 | 7-014865 | Insulation Blanket, 18" OD x 4.5" ID | 1 |
| 24 | 2-1046 | Plug, 1/4" (Legacy) | 1 |
| | 2-1044 | Plug, 1/8" (General) | 1 |
| 25 | 90-200012 | Nut, 1/4", Flange | 4 |
| 26 | 90-1016 | Bolt, 3/8" x 1" | 8 |
| 27 | 90-10220 | Bolt, 3/8" x 3-1/2", TAP | 2 |
| 28 | 95-07164054 | Coil 18" | 1 |
| | 7-01433 | ▲ Insulation Blanket | 1 |

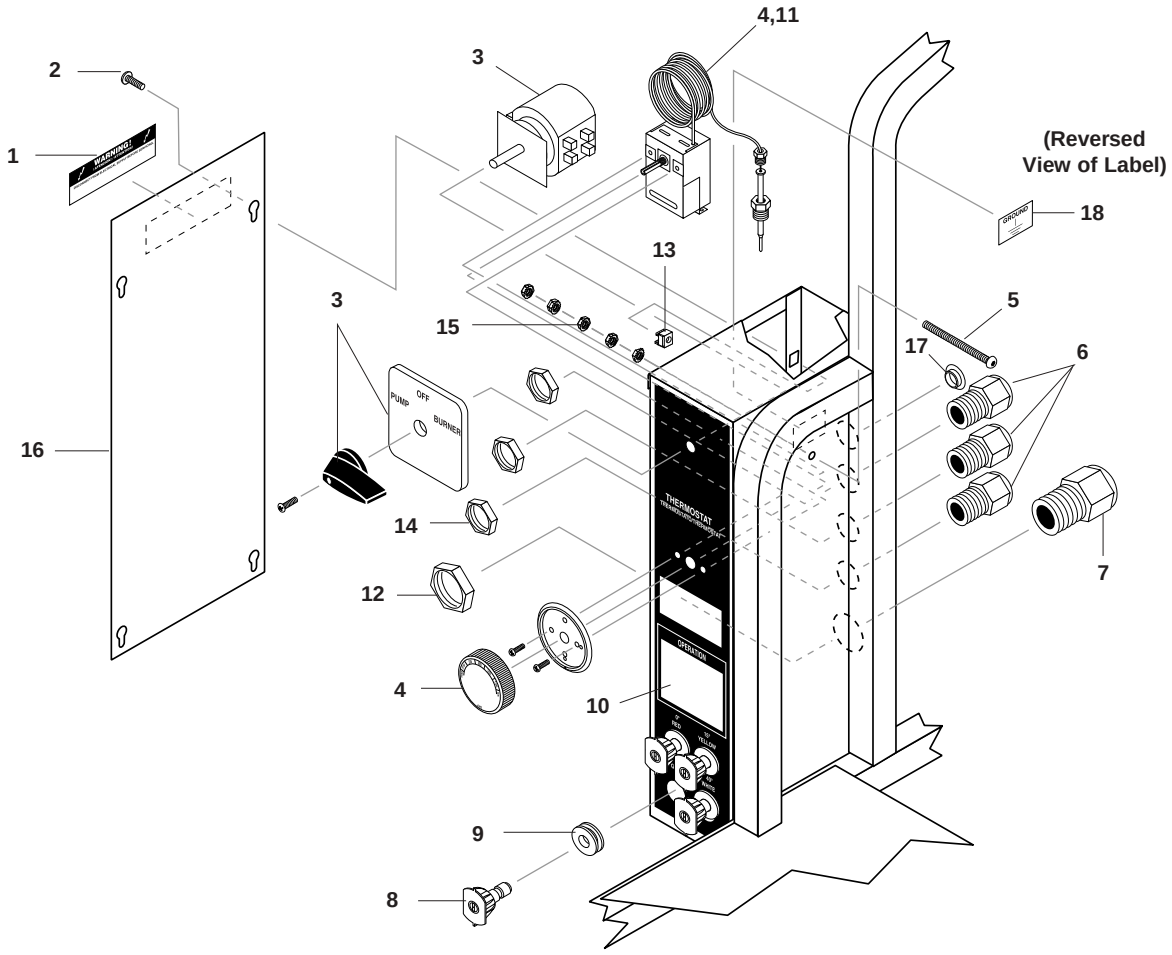
| ITEM | PART NO. | DESCRIPTION | QTY |
|---|---|---|---|
| 29 | 6-021720 | Pressure Switch, 1/4" | 1 |
| 30 | 90-40001 | Washer, 1/4" | 4 |
| 31 | 95-07164053 | Outer Wrap, 18" Coil | 1 |
| 32 | 95-07163088 | Tank End 18" | 1 |
| 33 | 7-014866 | Insulation Disk | 1 |
| 34 | 2-0031 | Elbow, 3/8" Street | 1 |
| 35 | 2-2007 | Nipple, 3/8" | 1 |
| 36 | 95-07101225 | Discharge Block, 3/8" x 1/2" | 1 |
| 37 | 2-00602 | Elbow, 1/2" JIC x 1/2" FEM | 1 |
| 38 | 4-02047722 | Hose, 3/8" x 22" | 1 |
| 39 | 2-00601 | Elbow, 1/2" JIC, 3/8" Fem (Legacy) | 1 |
| | 2-0053 | Elbow, 1/2" JIC x 3/8", 90° (General) | 1 |
| 40 | 90-10201 | Bolt, 3/8" x 2-1/4" | 1 |
| 41 | 90-2007 | Nut, 3/8" Hex | 2 |
| 42 | 2-3408 | Rupture Disk Assy, 8000 PSI | 1 |
| | 2-3480 | Replacement, Rupture Disk 8000 PSI | 1 |
| 43 | 2-90041 | Screw Clamp #16 | 1 |
| 44 | 4-02130050 | Hose, 7/8" | 2.33 ft. |
| 45 | 1-190029 | Cap, Valve w/1/4" Port (General) | 1 |
| | 15-070042532 | Cap, Valve w/1/4" Port (Legacy) | 1 |
| 46 | 90-20040 | Nut, 3/8" Flange, Whiz Loc | 4 |
| 47 | 2-10942 | Swivel, 1/2", GHF | 1 |
| 48 | 90-4005 | Washer, 5/8" Flat | 2 |
| 49 | 90-19980 | Screw, 1/4" x 1" | 7 |
| 50 | 2-011724 | Belt Guard | 1 |
| | 95-07102101 | ▲ Tab, Belt Guard Mount | 3 |
| 51 | 90-20041 | Collar, 5/8" | 2 |
| 52 | 95-07102215 | Axle, SR | 1 |
| 53 | 95-07102244 | Pump Rail (General) | 1 |
| | 95-07163136 | Pump Rail (Legacy) | 1 |
| 54 | See Pages 34 & 35 for Pulley Details | | |
| 55 | See Pages 34 & 35 for Pulley Details | | |
| 56 | See Pages 34 & 35 for Belt Details | | |
| 57 | See Pages 34 & 35 for Bushing Details | | |
| 58 | See Pages 34 & 35 for Bushing Details | | |

## SENIOR SERIES
### EXPLODED VIEW PARTS LIST (CONTINUED)

| ITEM | PART NO. | DESCRIPTION | QTY |
|---|---|---|---|
| 59 | Burner Assembly, See Burner Spec's Page 32 | | |
| 60 | 90-50045 | Clip, Retainer | 4 |
| 61 | 11-3229 | Label, Belt Guard | 1 |
| | 11-3119 | Label, Belt Guard | 1 |
| 62 | 95-07290053 | Retainer, Burner Insulation | 1 |
| 63 | 90-19960 | Screw, 3/8" x 1-1/4" Whiz Loc | 4 |
| 64 | 2-00091 | Nipple, 1/2" x 3", Galv. | 1 |
| 65 | 2-00101 | Nipple, 1/2" x 4", Galv. | 1 |
| 66 | 95-0729007 | Tab, Outer Wrap | 4 |
| 67 | 90-20231 | Nut, Cage, 1/4" x 12 GA | 14 |
| 68 | 90-19711 | Screw, 1/4" x 1/2", Whiz Loc | 15 |
| 69 | 90-19708 | Screw, 1/4" x 1-1/4", Whiz Loc | 4 |
| 70 | 90-40125 | Washer, 3/8" x 1" | 2 |
| 71 | 90-4002 | Washer, 3/8", Flat | 25 |
| 72 | 6-01059 | GFCI, 230V, 30 Amp (402001A, 402007A) | 1 |
| | 6-010690 | GFCI, 240V, 40 Amp (353001, 353007) | 1 |
| | 6-0109 | Service Cord, 10/4 (353001B, 353007B) | 15 ft. |
| | 6-0105 | Service Cord, 12/4 (353001C, 353007C, 402001B/C, 402007B/C) | 15 ft. |
| 73 | 90-4015 | Washer, 7/16" x 2-1/2" | 2 |
| 74 | 2-1085 | Hose Barb, 1/4" | 2 |
| 75 | 90-2002 | Nut, 3/8", ESNA | 13 |
| 76 | 4-02100000 | Fuel Line, 1/4" | 28 in. |
| 77 | 2-9040 | Clamp, Hose UNI .46-.54 | 4 |
| 78 | 2-99031 | Filter, Fuel | 1 |
| 79 | 4-02100000 | Fuel Line, 1/4" | 21 in. |
| 80 | 4-02100000 | Fuel Line, 1/4" | 6 in. |
| 81 | 6-0128 | Conduit, Water Tite | 2.25 ft. |
| 82 | 6-051591 | Connector 1/2" L/T 90° Black | 1 |
| 83 | 10-99078 | Label, Motor Overload Reset (4020A Only) | 1 |
| 84 | 10-09003 | Label, Cold Water Inlet | 1 |
| 85 | 90-1030 | Bolt, 8mm x 16mm Hex Head (Legacy) | 4 |
| 86 | 90-4001 | Washer, 5/16" Flat SAE (Legacy) | 4 |
| | 90-4002 | Washer, 3/8" Flat SAE (General) | 4 |
| 87 | 90-4008 | Washer, 5/16" Lock Split | 4 |
| 88 | 90-2022 | Nut, Cage 1/4" x 16 Ga. | 4 |
| 89 | 90-19710 | Screw, 1/4" x 3/4" HH, NC Whiz Loc | 4 |
| 90 | 2-1905 | Strainer, 1/4" Brass | 1 |
| 91 | 2-9040 | Clamp, Hose, UNI .46 - .54 | 2 |
| 92 | 35-156 | Fuel Filter Upgrade Option (Items 92-94) | |
| | 2-99050 | Filter, Fuel/Oil/$H_2O$ | 1 |
| 93 | 2-0013451 | Nipple, 1/4" x 3" | 1 |
| 94 | 2-1089 | Hose Barb, 1/4" Barb, 1/4" Pipe, 90° | 1 |

▲ Not Shown

## CONTROL PANEL
### MINI SERIES

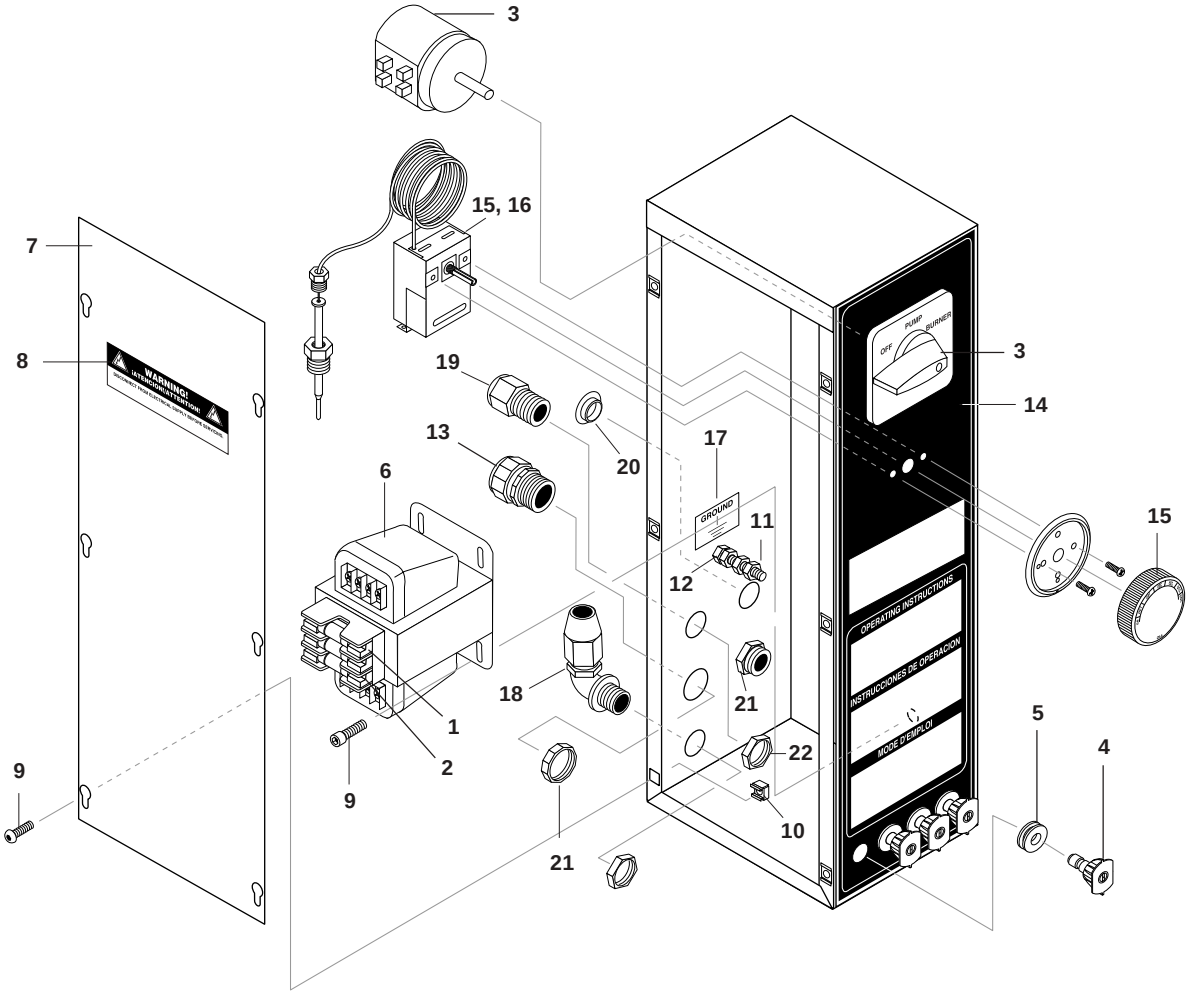



| ITEM | PART NO. | DESCRIPTION | QTY |
|---|---|---|---|
| 1 | 10-08021 | Label, Disconnect Pwr Supply | 1 |
| 2 | 90-1991 | Screw, 10/32" x 1/2" NHSOC, Blk | 4 |
| 3 | 6-020201 | Switch, 3 PS, 115V-230V, 1PH | 1 |
| 4 | 4-05088 | Thermostat, Adjustable, 302°F | 1 |
| 5 | 90-1994 | Screw, 10/32" x 1-1/4" RH, SL, Blk | 1 |
| 6 | 6-05152 | Strain Relief, STRT, LQ TITE 3231, Small | 3 |
| 7 | 6-051595 | Strain Relief, STRT, LQ TITE 3234, Large | 1 |
| 8 | 4-12804000 | Nozzle, SAQCMEG 0004, Red | 1 |
| | 4-12804015 | Nozzle, SAQCMEG 1504, Yellow | 1 |
| | 4-12804025 | Nozzle, SAQCMEG 2504, Green | 1 |

| ITEM | PART NO. | DESCRIPTION | QTY |
|---|---|---|---|
| 8 | 4-12804040 | Nozzle, SAQCMEG 4004, White | 1 |
| 9 | 2-0103 | Grommet, Rubber, Nozzle Holder | 4 |
| 10 | 11-0318 | Label, Control Panel, Mini | 1 |
| | 11-0320 | Label, Control Panel, Mini | 1 |
| 11 | 6-01270 | ▲ Conduit, 1/4" Split | 36 in |
| 12 | 6-05181B | Locknut, 3/4" 8465 | 1 |
| 13 | 9-2018 | Nut, Cage, 10/32" x 16 GA | 4 |
| 14 | 6-05181A | Locknut, 1/2" 8463 | 3 |
| 15 | 90-017 | Nut, 10/32" Keps | 5 |
| 16 | 95-07102246 | Electric Box Cover, Mini | 1 |
| 17 | 2-01403 | Bushing, Snap, 5/8" | 1 |
| 18 | 11-1042 | Label, Ground | 1 |

▲ Not Shown

## CONTROL PANEL
### JUNIOR SERIES

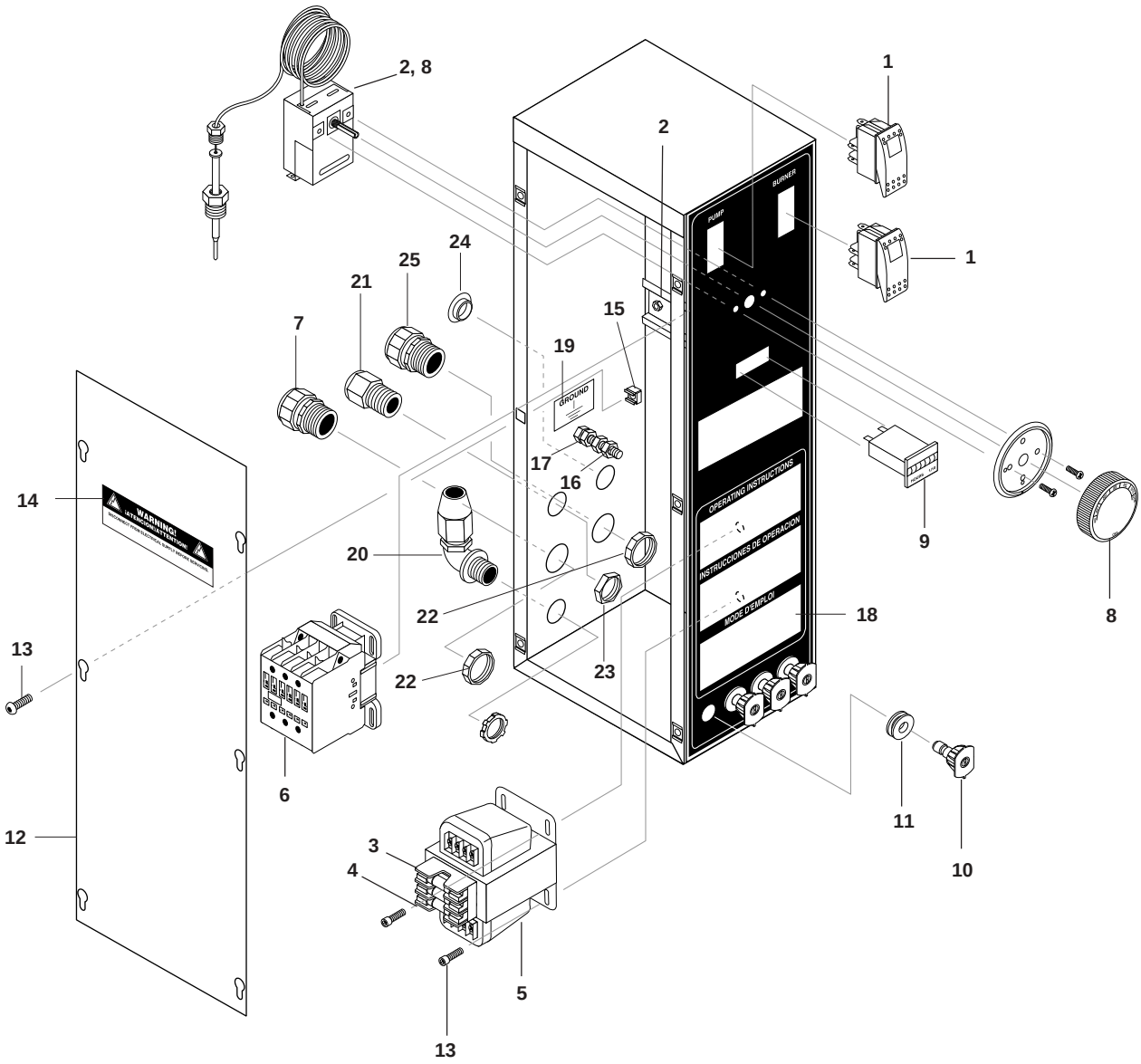


# CONTROL PANEL
## JUNIOR SERIES

| ITEM | PART NO. | DESCRIPTION | QTY |
|---|---|---|---|
| 1 | See Page 35 for Fuse Details | | |
| 2 | See Page 35 for Fuse Details | | |
| 3 | 6-020201 | Switch, 3 PS, 115V-230V, 1 PH Salzer | 1 |
| 4 | 4-12805000 | Nozzle, SAQCMEG 0005, Red (301001, 352007, 352001) | 1 |
| | 4-12805015 | Nozzle, SAQCMEG 1505, Yellow (301001, 352007, 352001) | 1 |
| | 4-12805025 | Nozzle, SAQCMEG 2505, Green (301001, 352007, 352001) | 1 |
| | 4-12805040 | Nozzle, SAQCMEG 4005, White (301001, 352007, 352001) | 1 |
| | 4-12803500 | Nozzle, SAQCMEG 0035, Red (201501, 201507) | 1 |
| | 4-12803515 | Nozzle, SAQCMEG 1535, Yellow (201501, 201507) | 1 |
| | 4-12803525 | Nozzle, SAQCMEG 2535, Green (201501, 201507) | 1 |
| | 4-12803540 | Nozzle, SAQCMEG 4035, White (201501, 201507) | 1 |
| | 4-12804000 | Nozzle, SAQCMEG 0004, Red (201007, 201001, 301607) | 1 |
| | 4-12804015 | Nozzle, SAQCMEG 1504, Yellow (201007, 201001, 301607) | 1 |
| | 4-12804025 | Nozzle, SAQCMEG 2504, Green (201007, 201001, 301607) | 1 |
| | 4-12804040 | Nozzle, SAQCMEG 4004, White (201007, 201001, 301607) | 1 |
| | 4-12804500 | Nozzle, SAQCMEG 0004.5, Red (301601) | 1 |
| 4 | 4-12804515 | Nozzle, SAQCMEG 15045, Yellow (301601) | 1 |
| | 4-12804525 | Nozzle, SAQCMEG 25045, Green (301601) | 1 |
| | 4-12804540 | Nozzle, SAQCMEG 40045, White (301601) | 1 |
| 5 | 2-0103 | Grommet, Rubber, Nozzle Holder | 4 |
| 6 | See Page 35 for Transformer Details | | |
| 7 | 95-07102240 | Cover, Electrical Box | 1 |
| 8 | 10-08021 | Label, Disconnect Pwr Supply | 1 |
| 9 | 90-1991 | Screw, 10/32" x 1/2" | 10 |
| 10 | 90-2018 | Nut, Cage, 10/32" x 16 GA | 6 |
| 11 | 90-1994 | Screw, 10/32" x 1-1/4" | 1 |
| 12 | 90-017 | Nut, 10/32" Keps | 9 |
| 13 | 6-051595 | Strain Relief, STRT, L/T, LG | 2 |
| 14 | 11-0305 | Label, Control Panel | 1 |
| 15 | 4-05088 | Adjustable Thermostat | 1 |
| 16 | 6-01270 | ▲ 1/4" Split Conduit | 4 ft |
| 17 | 11-1042 | Label, Ground | 1 |
| 18 | 6-051591 | Connector, 1/2", L/T 90°, Black | 1 |
| 19 | 6-05152 | Strain Relief, STRT, L/T, Sm | 1 |
| 20 | 2-01403 | Bushing, Snap 5/8" | 1 |
| 21 | 6-05181B | Locknut, 3/4" | 2 |
| 22 | 6-05181A | Locknut, 1/2" | 1 |

▲ Not Shown

## CONTROL PANEL
### SENIOR SERIES



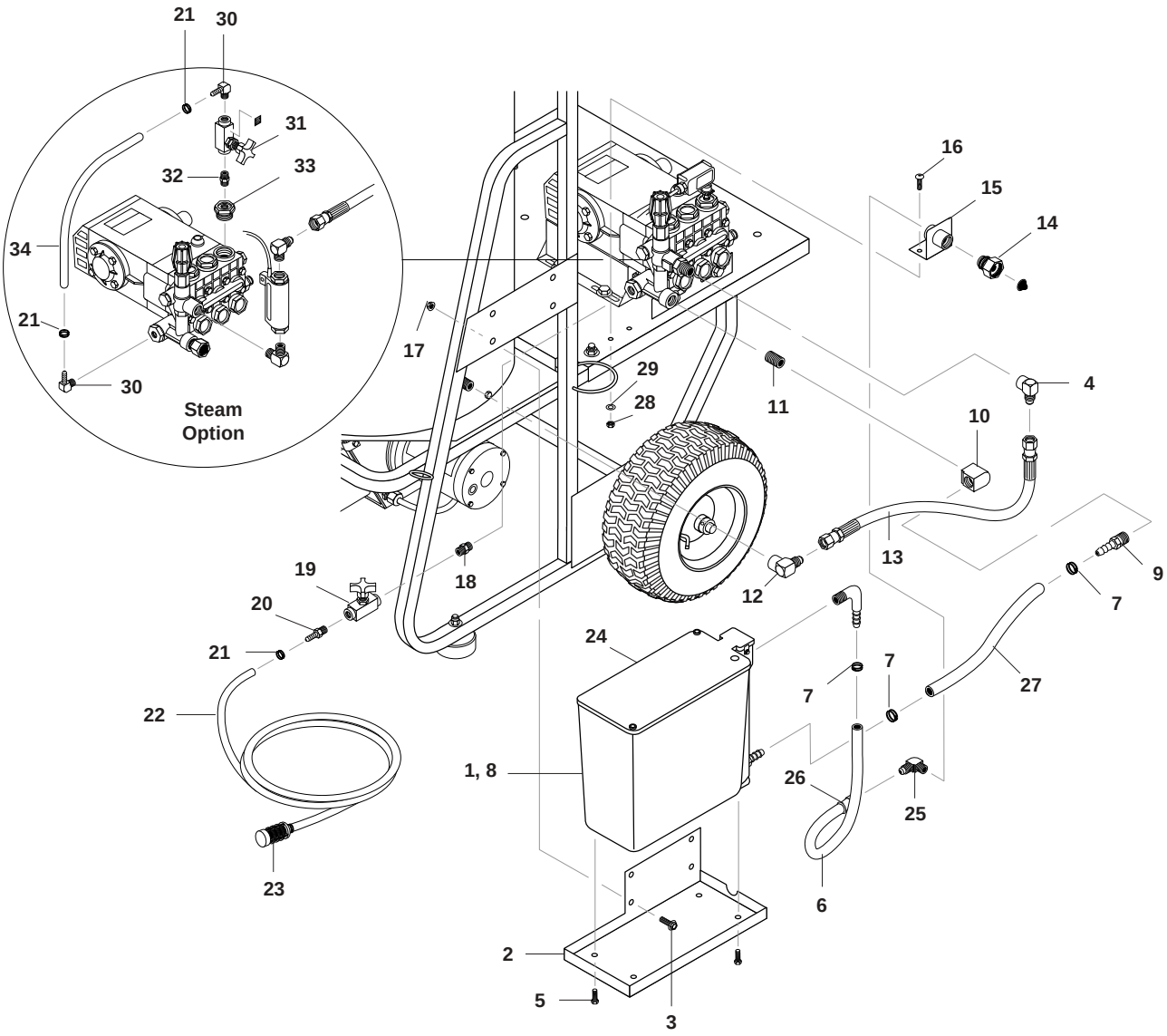
## CONTROL PANEL PARTS LIST
### SENIOR SERIES

| ITEM | PART NO. | DESCRIPTION | QTY |
|---|---|---|---|
| 1 | 6-020240 | Switch, Rocker, Carling w/Green Lens | 2 |
| | 6-020241 | Rocker Switch, Red Lens (Auto Start) | 1 |
| 2 | 6-01270 | ▲ Conduit, 1/4" Split | 4 ft. |
| 3 | See Page 35 for Fuse Details | | |
| 4 | See Page 35 for Fuse Details | | |
| 5 | See Page 35 for Transformer Details | | |
| 6 | See Page 35 for Contactor Details | | |
| 7 | 6-051595 | Strain Relief, STRT, L/T, (4020) LG | 1 |
| | 6-05170 | Strain Relief, 3/4" Watertight (3530A) | 1 |
| 8 | 4-05088 | Thermostat, General 302 DGR | 1 |
| 9 | 4-050822 | Hour Meter (Optional) | 1 |
| 10 | 4-12805500 | Nozzle, SAQCMEG 0055, Red (402001, 402007) | 1 |
| | 4-12805515 | Nozzle, SAQCMEG 1505.5, Yellow (402001, 402007) | 1 |
| | 4-12805525 | Nozzle, SAQCMEG 2505.5, Green (402001, 402007) | 1 |
| | 4-12805540 | Nozzle, SAQCMEG 4005.5, White (402001, 402007) | 1 |
| | 4-12804000 | Nozzle, SAQCMEG 0004 Red (353001, 353007) | 1 |
| | 4-12804015 | Nozzle SAQCMEG 1504 Yellow (353001, 353007) | 1 |
| | 4-12804025 | Nozzle, SAQCMEG 2504 Green (353001, 353007) | 1 |
| | 4-12804040 | Nozzle, SAQCMEG 4004 White (353001, 353007) | 1 |

| ITEM | PART NO. | DESCRIPTION | QTY |
|---|---|---|---|
| 11 | 2-0103 | Grommet, Rubber, Nozzle Holder | 4 |
| 12 | 95-07102201 | Cover, Elec Box | 1 |
| 13 | 90-1991 | Screw, 10/32" x 1/2" | 10 |
| 14 | 10-08018 | Label, Disconnect Power Supply | 1 |
| 15 | 90-2018 | Nut, Cage, 10/32" x 16 ga. | 6 |
| 16 | 90-1994 | Screw, 10/32" x 1-1/4" | 1 |
| 17 | 90-017 | Nut, 10/32" Keps | 4 |
| 18 | 11-0304 | Label, Control Panel | 1 |
| 19 | 11-1042 | Label, Ground | 1 |
| 20 | 6-051591 | Connector, 1/2", L/T 90°, Black | 1 |
| 21 | 6-05152 | Strain Relief, STRT, L/T, Sm | 2 |
| 22 | 6-05181B | Locknut, 3/4" | 2 |
| 23 | 6-05181A | Locknut, 1/2" | 1 |
| 24 | 2-01403 | Bushing, Snap 5/8" | 1 |
| 25 | 6-051595 | Strain Relief, STRT, L/T, LG | 1 |

▲ Not Shown

## FLOAT TANK OPTION EXPLODED VIEW
### SENIOR SERIES

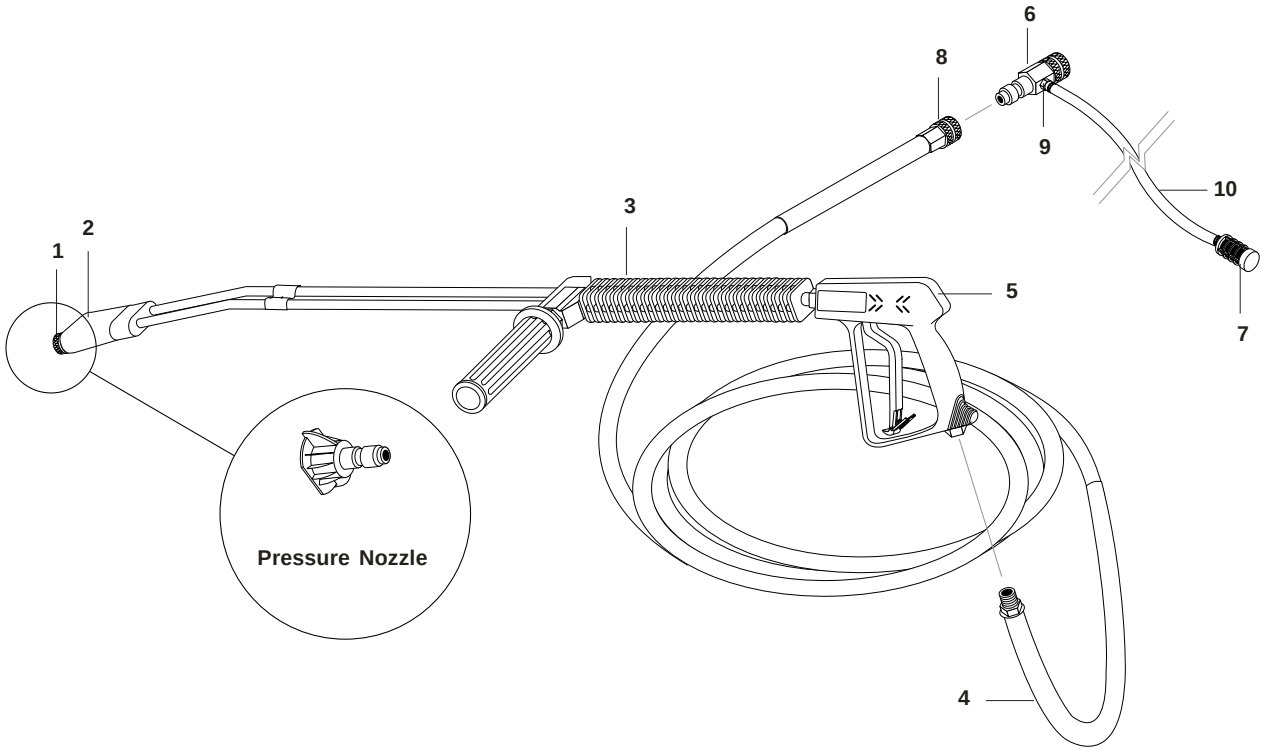


## FLOAT TANK OPTION PARTS LIST
### SENIOR SERIES

| ITEM | PART NO. | DESCRIPTION | QTY |
|---|---|---|---|
| 1 | 2-011641 | Tank, Float | 1 |
| 2 | 95-07102213 | Shelf, Float Tank | 1 |
| 3 | 90-1996 | Screw, 3/8" x 3/4" HH NC, Whiz | 4 |
| 4 | 2-00601 | Elbow, 1/2" JIC x 3/8" Fem, 90° | 1 |
| 5 | 90-19712 | Screw, 5/16" x 1/2" Whiz Lock | 4 |
| 6 | 4-02110000 | Hose, 1/2", Push-On, per ft. | 1.5 ft |
| 7 | 2-9002 | Clamp, Screw, #6 | 3 |
| 8 | 2-30122 | ▲ Valve, Float | 1 |
| | 2-01021 | ▲ Ball Float | 1 |
| 9 | 2-10861 | Hose Barb, 5/8" Barb x 1/2" ML Pipe | 1 |
| 10 | 2-1020 | Elbow, 1/2" Female, Brass | 1 |
| 11 | 2-10061 | Modified Close Nipple, 1/2" NPT, 5/16" | 1 |
| 12 | 2-00602 | Elbow, 1/2" x 1/2" Fem, 90° | 1 |
| 13 | 4-02047722 | Hose, 3/8" x 22", 2 Wire, Pressure Loop | 1 |
| 14 | 2-10942 | Swivel, 1/2" MP x 3/4" GHF w/Strainer | 1 |
| 15 | 95-07162007 | Hose Connection Bracket | 1 |
| 16 | 90-1001 | Bolt, 1/4" x 3/4", NC HH | 2 |
| 17 | 90-20040 | Nut, 3/8", Flange, Whiz Loc, NC | 4 |
| 18 | 2-1003 | Nipple, 1/4" Hex | 1 |
| 19 | 2-3015 | Valve, Flow Control | 1 |
| 20 | 2-1085 | Hose Barb, 1/4" Barb x 1/4" ML Pipe | 1 |
| 21 | 2-9040 | Clamp, Hose, UNI, .46-.54 | 1 |
| 22 | 4-02080000 | Tube, 1/4" x 1/2", Clear Vinyl, per ft. | 6 ft |
| 23 | 2-1905 | Strainer, 1/4" Brass w/Check Valve | 1 |
| 24 | 2-011642 | Cover, Float Tank, Portotenica | 1 |
| 25 | 2-1062 | Elbow, 1/2" JIC x 1/2", 90° | 1 |
| 26 | 2-1105 | Swivel, 1/2" JIC Fem, Push-On | 1 |
| 27 | 4-02110003 | Hose, 5/8" Push-On, per ft | 1 ft |
| 28 | 90-2000 | Nut, 1/4", ESNA, NC | 2 |
| 29 | 90-4000 | Washer, 1/4" Flat, SAE | 4 |
| 30 | 2-1089 | Hose Barb, 1/4" Barb x 1/4" Pipe, 90° | 2 |
| 31 | 2-30151 | Valve, Flow Control w/Metering | 1 |
| 32 | 2-0004 | Nipple, 1/4" Hex Steel | 1 |
| 33 | 15-070042532 | Cap, Valve with 1/4" Gauge Port | 1 |
| 34 | 4-02100000 | Hose, 1/4", Push-on | 0.8 ft |

▲ Not Shown

## HOSE AND SPRAY GUN ASSEMBLY



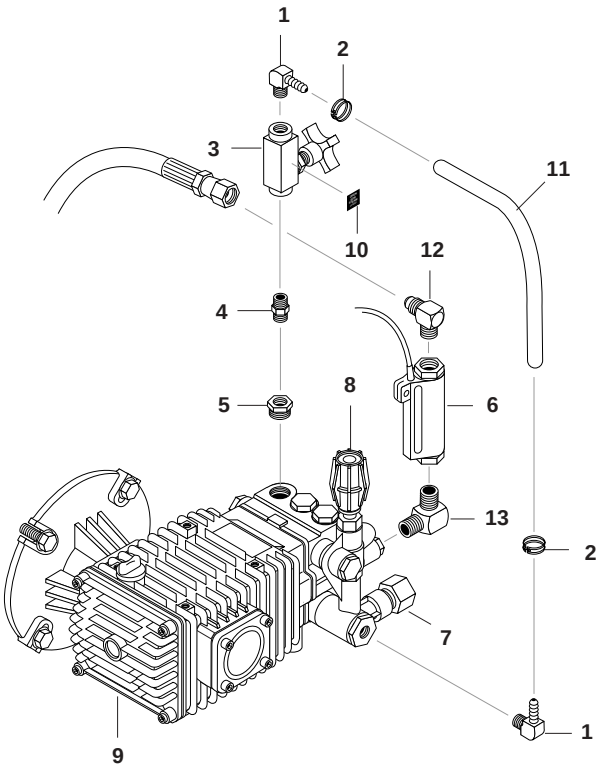

| ITEM | PART NO. | DESCRIPTION | QTY |
|---|---|---|---|
| 1 | 2-2001 | Coupler, 1/4" Male | 1 |
| | 2-0119 | ▲ Quick Coupler O-Ring, Small | 1 |
| 2 | 4-06540 | ▲ Nozzle Only, 1/8" Soap | 1 |
| 3 | 4-0111341A | Wand, Zinc, VP, w/Coupler | 1 |
| | 83-SSVPKIT | ▲ Repair Kit, Wand, SS Seat | 1 |
| 4 | 4-02093450BC | Hose, 50' x 3/8", 100R1, Nomar w/Coupler | 1 |
| 5 | 4-01246 | Spray Gun, Shut-off, AP-1000 | 1 |
| 6 | 4-011184 | Detergent Injector, Non Adjust #3 (352001, 352007, 353001, 353007, 402001, 402007) | 1 |
| | 4-011183 | Detergent Injector, Non Adjust #2 (201101, 201107) | 1 |

| ITEM | PART NO. | DESCRIPTION | QTY |
|---|---|---|---|
| 7 | 2-1904 | Strainer, 1/4" Hose Barb | 1 |
| 8 | 2-2002 | Coupler, 3/8" Female | 1 |
| | 2-0121 | ▲ Quick Coupler, O-Ring, Large | 1 |
| 9 | 2-9040 | Clamp, Hose, UNI .46-.54 | 2 |
| 10 | 4-02090000 | Tube, 1/4" x 1/2" Clear Vinyl /Ft. | 6 |

▲ Not Shown

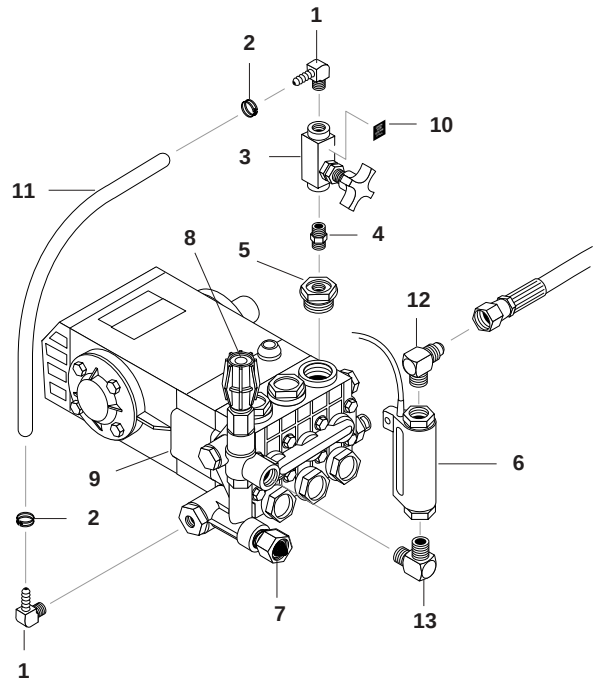
## STEAM OPTION
### MINI, JUNIOR SERIES

| ITEM | PART NO. | DESCRIPTION | QTY |
|---|---|---|---|
| 1 | 2-1089 | Hose Barb, 1/4" Barb x 1/4" Pipe, 90° | 2 |
| 2 | 2-9040 | Clamp, Hose, UNI .46-.54 | 2 |
| 3 | 2-30151 | Valve, Flow Control w/Metering | 1 |
| 4 | 2-0004 | Nipple, 1/4" Hex Steel | 1 |
| 5 | 15-070042532 | Cap, Valve with 1/4" Gauge Port w/O-Ring | 2 |
| | 1-190031 | Cap, Valve w/1/4" Gauge Port, TT Series (General) | 2 |
| 6 | 6-021730 | Switch, Flow, MV-60 | 1 |
| 7 | 2-10942 | Swivel, 1/2" MP x 3/4" GHF w/Strainer | 1 |
| 8 | See Pg. 15 | Unloader | 1 |
| 9 | See Pg. 15 | Pump | 1 |
| 10 | 10-99011 | Label, Open For Steam | 1 |
| 11 | 4-02100000 | Hose, 1/4" Push-On | 1 ft |
| 12 | 2-0053 | Elbow, 1/2" JIC x 3/8" | 1 |
| 13 | 2-0031 | Elbow, 3/8" Street, Male | 1 |




## STEAM OPTION
### SENIOR SERIES

| ITEM | PART NO. | DESCRIPTION | QTY |
|---|---|---|---|
| 1 | 2-1089 | Hose Barb, 1/4" Barb x 1/4" Pipe, 90° | 2 |
| 2 | 2-9040 | Clamp, Hose, UNI .46-.54 | 2 |
| 3 | 2-30151 | Valve, Flow Control w/Metering | 1 |
| 4 | 2-0004 | Nipple, 1/4" Hex Steel | 1 |
| 5 | 15-070042532 | Cap, Valve with 1/4" Gauge Port w/O-Ring | 2 |
| | 1-190031 | Cap, Valve w/1/4" Gauge Port, TT Series (General) | 2 |
| 6 | 6-021730 | Switch, Flow, MV-60 | 1 |
| 7 | 2-10942 | Swivel, 1/2" MP x 3/4" GHF w/Strainer | 1 |
| 8 | See Pg. 18 | Unloader | 1 |
| 9 | See Pg. 18 | Pump | 1 |
| 10 | 10-99011 | Label, Open For Steam | 1 |
| 11 | 4-02100000 | Hose, 1/4" Push-On | 1 ft |
| 12 | 2-0053 | Elbow, 1/2" JIC x 3/8" | 1 |
| 13 | 2-0031 | Elbow, 3/8" Street, Male | 1 |



## BECKETT BURNER SPECIFICATIONS

| Model # | Burner Assy # | Fuel Nozzle | Transformer | Burner Motor | Fuel Pump/ Solenoid/Cord | Fuel Solenoid Coil | Electrode |
|---|---|---|---|---|---|---|---|
| 201001D | 7-00009 | 7-01244 | 5-23581 | 7-21805U | 7-21844U | 7-21755U | 7-578727 |
| 201007D | 7-00009 | 7-01244 | 5-23581 | 7-21805U | 7-21844U | 7-21755U | 7-578727 |
| 201101D | 7-00027 | 7-01215 | 5-23581 | 7-21805U | 7-21844U | 7-21755U | 7-578727 |
| 201107D | 7-00027 | 7-01215 | 5-23581 | 7-21805U | 7-21844U | 7-21755U | 7-578727 |
| 201501D | 7-00009 | 7-01244 | 5-23581 | 7-21805U | 7-21844U | 7-21755U | 7-578727 |
| 201507D | 7-00009 | 7-01244 | 5-23581 | 7-21805U | 7-21844U | 7-21755U | 7-578727 |
| 301001D | 7-00027 | 7-01245 | 5-23581 | 7-21805U | 7-21844U | 7-21755U | 7-578727 |
| 301007D | 7-00027 | 7-01245 | 5-23581 | 7-21805U | 7-21844U | 7-21755U | 7-578727 |
| 301601A | 7-00090 | 7-01245 | 7-514021 | 7-21174 | 7-21844U | 7-21755U | 7-578727 |
| 301607A | 7-00090 | 7-01245 | 7-514021 | 7-21174 | 7-21844U | 7-21755U | 7-578727 |
| 352001A | 7-00090 | 7-0101 | 7-514021 | 7-21174 | 7-21844U | 7-21755U | 7-578727 |
| 352007A | 7-00090 | 7-0101 | 7-514021 | 7-21174 | 7-21844U | 7-21755U | 7-578727 |
| 353001A | 7-00090 | 7-0101 | 7-514021 | 7-21174 | 7-21844U | 7-21755U | 7-578727 |
| 353007A | 7-00090 | 7-0101 | 7-514021 | 7-21174 | 7-21844U | 7-21755U | 7-578727 |
| 353001B | 7-00090 | 7-0101 | 7-514021 | 7-21174 | 7-21844U | 7-21755U | 7-578727 |
| 353007B | 7-00090 | 7-0101 | 7-514021 | 7-21174 | 7-21844U | 7-21755U | 7-578727 |
| 353001C | 7-00021 | 7-0101 | 5-23581 | 7-21805U | 7-21844U | 7-21755U | 7-578727 |
| 353007C | 7-00021 | 7-0101 | 5-23581 | 7-21805U | 7-21844U | 7-21755U | 7-578727 |
| 402001A | 7-00090 | 7-0101 | 7-514021 | 7-21174 | 7-21844U | 7-21755U | 7-578727 |
| 402007A | 7-00090 | 7-0101 | 7-514021 | 7-21174 | 7-21844U | 7-21755U | 7-578727 |
| 402001B | 7-00090 | 7-0101 | 7-514021 | 7-21174 | 7-21844U | 7-21755U | 7-578727 |
| 402007B | 7-00090 | 7-0101 | 7-514021 | 7-21174 | 7-21844U | 7-21755U | 7-578727 |
| 402001C | 7-00021 | 7-0101 | 5-23581 | 7-21805U | 7-21844U | 7-21755U | 7-578727 |
| 402007C | 7-00021 | 7-0101 | 5-23581 | 7-21805U | 7-21844U | 7-21755U | 7-578727 |

## WAYNE BURNER SPECIFICATIONS

| Model # | Burner Assy # | Fuel Nozzle | Transformer | Burner Motor | Fuel Pump | Fuel Solenoid | Electrode |
|---|---|---|---|---|---|---|---|
| 201001D | 7-00038 | 7-0106 | 7-101050-001 | 7-20627 | 7-0009 | 7-0009611 | 7-13286 |
| 201007D | 7-00038 | 7-0106 | 7-101050-001 | 7-20627 | 7-0009 | 7-0009611 | 7-13286 |
| 201501D | 7-00038 | 7-0106 | 7-101050-001 | 7-20627 | 7-0009 | 7-0009611 | 7-13286 |
| 201507D | 7-00038 | 7-0106 | 7-101050-001 | 7-20627 | 7-0009 | 7-0009611 | 7-13286 |
| 301001D | 7-00038 | 7-01061 | 7-101050-001 | 7-20627 | 7-0009 | 7-0009611 | 7-13286 |
| 301007D | 7-00038 | 7-01061 | 7-101050-001 | 7-20627 | 7-0009 | 7-0009611 | 7-13286 |
| 301601A | 7-00039 | 7-01061 | 7-21948001 | 7-20892 | 7-0009 | 7-0009611 | 7-13286 |
| 301607A | 7-00039 | 7-01061 | 7-21948001 | 7-20892 | 7-0009 | 7-0009611 | 7-13286 |
| 352001A | 7-00039 | 7-0124 | 7-21948001 | 7-20892 | 7-0009 | 7-0009611 | 7-13286 |
| 352007A | 7-00039 | 7-0124 | 7-21948001 | 7-20892 | 7-0009 | 7-0009611 | 7-13286 |
| 353001A | 7-00024 | 7-01251 | 7-21153 | 7-20554 | 7-0009 | 7-0009611 | 7-13286 |
| 353007A | 7-00024 | 7-01251 | 7-21153 | 7-20554 | 7-0009 | 7-0009611 | 7-13286 |
| 353001B | 7-00024 | 7-01251 | 7-21153 | 7-20554 | 7-0009 | 7-0009611 | 7-13286 |
| 353007B | 7-00024 | 7-01251 | 7-21153 | 7-20554 | 7-0009 | 7-0009611 | 7-13286 |
| 353001C | 7-00038 | 7-01251 | 7-101050-001 | 7-20627 | 7-0009 | 7-0009611 | 7-13286 |
| 353007C | 7-00038 | 7-01251 | 7-101050-001 | 7-20627 | 7-0009 | 7-0009611 | 7-13286 |
| 402001A | 7-00024 | 7-01251 | 7-21153 | 7-20554 | 7-0009 | 7-0009611 | 7-13286 |
| 402007A | 7-00024 | 7-01251 | 7-21153 | 7-20554 | 7-0009 | 7-0009611 | 7-13286 |
| 402001B | 7-00024 | 7-01251 | 7-21153 | 7-20554 | 7-0009 | 7-0009611 | 7-13286 |
| 402007B | 7-00024 | 7-01251 | 7-21153 | 7-20554 | 7-0009 | 7-0009611 | 7-13286 |
| 402001C | 7-00038 | 7-01251 | 7-101050-001 | 7-20627 | 7-0009 | 7-0009611 | 7-13286 |
| 402007C | 7-00038 | 7-01251 | 7-101050-001 | 7-20627 | 7-0009 | 7-0009611 | 7-13286 |

## PARTS SPECIFICATIONS: LEGACY PUMP

| | PUMP | | | | | | | MOTOR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Machine Part # | Pump Unloader | Pump Parts # | Unloader | Pulley | Pulley Part # | Bushing | Bushing Part # | Motor Size | Voltage | Motor Part # | Pulley |
| **201107** | WMH-2521F | 5-1618 | 5-3150 | NA | NA | NA | NA | 1.5 HP | 120v/1ph/60Hz | 5-1046 | NA |
| **201007** | WMH-2521F | 5-1618 | 5-3150 | NA | NA | NA | NA | 1.5 HP | 120v/1ph/60Hz | 5-1046 | NA |
| **201507** | WMH-2521F | 5-1618 | 5-3150 | NA | NA | NA | NA | 2 HP | 120v/1ph/60Hz | 5-1047 | NA |
| **301007** | WMH-1528F | 5-1620 | 5-3150 | NA | NA | NA | NA | 2 HP | 120v/1ph/60Hz | 5-1047 | NA |
| **301607** | WMH-1528F | 5-1620 | 5-3150 | NA | NA | NA | NA | 3 HP | 230v/1ph/60Hz | 5-1048 | NA |
| **352007** | WMH-2035 | 5-1621 | 5-3150 | NA | NA | NA | NA | 5 HP | 230v/1ph/60Hz | 5-1053 | NA |
| **402007A** | TML-3053 | 5-1651 | 5-3151 | 2AK64H | 5-40206401 | 24 MM | 5-512024 | 6 HP | 230v/1ph/60Hz | 5-10401 | 2AK41H |
| **402007B** | TML-3053 | 5-1651 | 5-3151 | 2AK64H | 5-40206401 | 24 MM | 5-512024 | 6 HP | 230v/3ph/60Hz | 5-1011 | 2AK41H |
| **402007C** | TML-3053 | 5-1651 | 5-3151 | 2AK64H | 5-40206401 | 24 MM | 5-512024 | 6 HP | 230v/3ph/60Hz | 5-1011 | 2AK41H |
| **353007A** | TML-3053 | 5-1651 | 5-3151 | 2BK70H | 5-40507001 | 24 MM | 5-512024 | 7.5 HP | 230v/1ph/60Hz | 5-1013 | 2BK45H |
| **353007B** | TML-3053 | 5-1651 | 5-3151 | 2BK70H | 5-40507001 | 24 MM | 5-512024 | 7.5 HP | 230v/3ph/60Hz | 5-10145 | 2BK45H |
| **353007C** | TML-3053 | 5-1651 | 5-3151 | 2BK70H | 5-40507001 | 24 MM | 5-512024 | 7.5 HP | 230v/3ph/60Hz | 5-10145 | 2BK45H |

## PARTS SPECIFICATIONS: GENERAL PUMP

| | PUMP | | | | | | | Motor | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Machine Model | Pump Model | Pump Part # | Unloader | Pulley | Pulley Part # | Bushing | Bushing Part # | Motor Size | Voltage | Motor Part # | Pulley |
| **201101** | TT-9061 | 5-23001 | 5-3024 | NA | NA | NA | NA | 1.5 HP | 120v/1ph/60Hz | 5-1046 | NA |
| **201001** | TT-9061 | 5-23001 | 5-3024 | NA | NA | NA | NA | 1.5 HP | 120v/1ph/60Hz | 5-1046 | NA |
| **201501** | TT-9061 | 5-23001 | 5-3024 | NA | NA | NA | NA | 2 HP | 120v/1ph/60Hz | 5-1047 | NA |
| **301001** | TT-9071 | 5-23010 | 5-3024 | NA | NA | NA | NA | 2 HP | 120v/1ph/60Hz | 5-1047 | NA |
| **301601** | TT-9071 | 5-23010 | 5-3024 | NA | NA | NA | NA | 3 HP | 230v/1ph/60Hz | 5-1048 | NA |
| **352001** | TT-2035 | 5-2303 | 5-3024 | NA | NA | NA | NA | 5 HP | 230v/1ph/60Hz | 5-1053 | NA |
| **402001A** | T-1011 | 5-2304 | 5-3025 | 2AK64H | 5-40206401 | 24 MM | 5-512024 | 6 HP | 230v/1ph/60Hz | 5-10401 | 2AK41H |
| **402001B** | T-1011 | 5-2304 | 5-3025 | 2AK64H | 5-40206401 | 24 MM | 5-512024 | 6 HP | 230v/3ph/60Hz | 5-1011 | 2AK41H |
| **402001C** | T-1011 | 5-2304 | 5-3025 | 2AK64H | 5-40206401 | 24 MM | 5-512024 | 6 HP | 230v/3ph/60Hz | 5-1011 | 2AK41H |
| **353001A** | TS-2021 | 5-2307 | 5-3025 | 2BK80H | 5-40508001 | 24 MM | 5-512024 | 7.5 HP | 230v/1ph/60Hz | 5-1013 | 2BK45H |
| **353001B** | TS-2021 | 5-2307 | 5-3025 | 2BK80H | 5-40508001 | 24 MM | 5-512024 | 7.5 HP | 230v/3ph/60Hz | 5-10145 | 2BK45H |
| **353001C** | TS-2021 | 5-2307 | 5-3025 | 2BK80H | 5-40508001 | 24 MM | 5-512024 | 7.5 HP | 230v/3ph/60Hz | 5-10145 | 2BK45H |

| MOTOR | | | | | | CONTROLS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Model (Con't) | Pulley Part # | Bushing | Bushing Part # | Belt Size | Belt Part # | Motor Contactor | Overload | Stepdown Transformer | Primary Fuse Part # | Secondary Fuse Part # |
| 201107 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 201007 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 201507 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 301007 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 301607 | NA | NA | NA | NA | NA | NA | NA | 6-60101 | 6-02294 | 6-022970 |
| 352007 | NA | NA | NA | NA | NA | NA | NA | 6-60101 | 6-02294 | 6-022970 |
| 402007A | 5-40204101 | Hx1-1/8" | 5-511113 | AX 31(2) | 5-602031 | 6-4018 | NA | 6-60101 | 6-02294 | 6-022970 |
| 402007B | 5-40204101 | Hx1-1/8" | 5-511113 | AX 31 (2) | 5-602031 | 6-4010 | 6-5011 | 6-60101 | 6-02294 | 6-022970 |
| 402007C | 5-40204101 | Hx1-1/8" | 5-511113 | AX 31(2) | 5-602031 | 6-4004 | 6-5009 | 6-60021 | 6-022910 | 6-02306 |
| 353007A | 5-40504501 | Hx1-3/8" | 5-511138 | BX 35 (2) | 5-604035 | 6-4018 | 6-5015 | 6-60101 | 6-02294 | 6-022970 |
| 353007B | 5-40504501 | Hx1-3/8" | 5-511138 | BX 35 (2) | 5-604035 | 6-4010 | 6-5013 | 6-60101 | 6-02294 | 6-022970 |
| 353007C | 5-40504501 | Hx1-3/8" | 5-511138 | BX 35 (2) | 5-604035 | 6-4004 | 6-5010 | 6-60021 | 6-022910 | 6-02306 |

| MOTOR | | | | | | CONTROLS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Model (Con't) | Pulley Part # | Bushing | Bushing Part # | Belt Size | Belt Part # | Motor Contactor | Overload | Stepdown Transformer | Primary Fuse Part # | Secondary Fuse Part # |
| 201101 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 201001 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 201501 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 301001 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 301601 | NA | NA | NA | NA | NA | NA | NA | 6-60101 | 6-02294 | 6-022970 |
| 352001 | NA | NA | NA | NA | NA | NA | NA | 6-60101 | 6-02294 | 6-022970 |
| 402001A | 5-40204101 | Hx1-1/8" | 5-511113 | AX 31 (2) | 5-602031 | 6-4018 | NA | 6-60101 | 6-02294 | 6-022970 |
| 402001B | 5-40204101 | Hx1-1/8" | 5-511113 | AX 31 (2) | 5-602031 | 6-4010 | 6-5011 | 6-60101 | 6-02294 | 6-022970 |
| 402001C | 5-40204101 | Hx1-1/8" | 5-511113 | AX 31 (2) | 5-602031 | 6-4004 | 6-5009 | 6-60021 | 6-022910 | 6-02306 |
| 353001A | 5-40504501 | Hx1-3/8" | 5-511138 | BX 36 (2) | 5-604036 | 6-4018 | 6-5015 | 6-60101 | 6-02294 | 6-022970 |
| 353001B | 5-40504501 | Hx1-3/8" | 5-511138 | BX 36 (2) | 5-604036 | 6-4010 | 6-5013 | 6-60101 | 6-02294 | 6-022970 |
| 353001C | 5-40504501 | Hx1-3/8" | 5-511138 | BX 36 (2) | 5-604036 | 6-4004 | 6-5010 | 6-60021 | 6-022910 | 6-02306 |

# TROUBLESHOOTING

| PROBLEM | POSSIBLE CAUSE | SOLUTION |
|---|---|---|
| **BURNER WILL NOT LIGHT** | Disconnected or short in electrical wiring | All wire contacts should be clean and tight. No breaks in wire. |
| | Burner motor thermal protector tripped | If tripped, check voltage, connections and extensions for cause. Check fuel pump shaft rotation for binding, causing motor to overheat. |
| | ON-OFF switch defective | Check continuity through burner switch. |
| | Heavy sooting on coil and burner, can cause interruption of air flow and shorting of electrodes | Clean as required. |
| | Improper electrode setting | Clean and test according to diagram in operator's manual. |
| | Fuel not reaching combustion chamber | Check fuel pump for proper flow. Check solenoid valve on machines with spray gun control for proper on-off flow switch. |
| | Fuel solenoid malfunction | Check by placing screwdriver inside coil then turn machine on, open spray gun and check for magnetic pull. |
| | Clogged burner nozzle | Replace. |
| | Water not turned on | Turn on water to activate burner pressure switch. |
| | Pressure switch malfunction | Remove, test for continuity and replace as needed. |
| **MACHINE SMOKES** | Improper fuel or water in fuel | Drain tank and replace contaminated fuel. |
| | Low fuel pressure | Adjust fuel pump pressure to specifications. |
| | Air leaks in fuel lines | Check fuel lines for leaks or air bubbles. Tighten or replace as needed. |
| | Plugged or dirty burner nozzle | Replace. |
| | Faulty burner nozzle spray pattern | Replace nozzle. |
| | Heavy accumulation of soot on coils and burner assembly | Remove coils and burner assembly. Clean thoroughly. |
| | Misaligned electrode | Realign electrodes to specifications. |
| | Fuel filter partially clogged | Replace as needed. |
| | Obstruction in smoke stack | Check for insulation blockage or other foreign objects. |
| | Soot build up on coils | Clean coils with soot remover. |
| | Lime build up in coils | Clean inside of coils using coil cleaner. |

# TROUBLESHOOTING

| PROBLEM | POSSIBLE CAUSE | SOLUTION |
|---|---|---|
| **LOW WATER TEMPERATURE** | Improper fuel or water in fuel | Drain fuel tank and replace with proper fuel. |
| | Low fuel pressure | Increase fuel pressure. |
| | Weak fuel pump | Check fuel pump temperature. Replace pump if needed. |
| | Fuel filter partially clogged | Replace as needed. |
| | Soot build up on coils | Clean coils with soot remover. |
| | Lime build up on coils | Clean inside of coils usings coil cleaner. |
| | Improper burner nozzle | See Burner Specifications Pages 30-31. |
| **WATER TEMPERATURE TOO HOT** | Incoming water to machine warm or hot | Lower incoming water temperature. |
| | Fuel pump pressure too high | Lower fuel pressure. |
| | Fuel pump defective | Replace fuel pump. |
| | Detergent line sucking air | Tighten all clamps. Check detergent line for holes. |
| | Defective high limit switch (thermostat) | Replace. |
| | Incorrect fuel nozzle size | See Burner Specifications Pages 30-31. |
| | Insufficient water supplied | Check GPM to machine. |
| | Restricted water flow | Check nozzle for obstruction, proper size. |

# TROUBLESHOOTING

| PROBLEM | POSSIBLE CAUSE | SOLUTION |
|---|---|---|
| **LOW OPERATING PRESSURE** | Faulty pressure gauge | Install new gauge. |
| | Insufficient water supply | Use larger garden hose; clean filter washer at water inlet. |
| | Old, worn or incorrect spray nozzle | Match nozzle number to machine and/or replace with new nozzle. |
| | Plumbing or hose leak | Check plumbing system for leaks. Retape leaks with teflon tape. |
| | Faulty or misadjusted unloader valve (where applicable) | Adjust unloader for proper pressure. Install repair kit when needed. |
| | Worn packing in pump | Install new packing kit. |
| | Fouled or dirty inlet or discharge valves in pump | Clean inlet or discharge valves. |
| | Worn inlet or discharge valves | Replace with valve kit. |
| **DETERGENT NOT DRAWING** | Air leak | Tighten all clamps. Check detergent lines for holes. |
| | Valve in the injector head may be blocked, dirty or damaged | Clean or replace valve in injector. |
| | Filler screen on detergent suction hose plugged | Clean or replace. |
| | Dried up detergent plugging metering valve | Disassemble and clean thoroughly. |
| | High viscosity of detergent | Dilute detergent to specifications. |
| | Hole in detergent line(s) | Repair hole. |
| | Low detergent level | Add detergent if needed. |
| | Discharge water temperature above 180°F. | Lower discharge water temperature. |
| **PUMP RUNNING NORMALLY BUT PRESSURE LOW ON INSTALLATION** | Pump sucking air | Check water supply and possibility of air seepage. |
| | Valves sticking | Check and clean or replace if necessary. |
| | Unloader valve seat faulty | Check and replace if necessary. |
| | Nozzle incorrectly sized | Check and replace if necessary (See serial plate for proper size). |
| | Worn piston packing | Check and replace in necessary. |
| **FLUCTUATING PRESSURE** | Valves worn | Check and replace if necessary. |
| | Blockage in valve | Check and replace if necessary. |
| | Pump sucking air | Check water supply and air seepage at joints in suction line. |
| | Worn piston packing | Check and replace if necessary. |
| **PUMP NOISY** | Air in suction line | Check water supply and connections on suction line. |
| | Broken or weak inlet or discharge valve springs | Check and replace if necessary. |
| | Excessive matter in valves | Check and clean if necessary. |
| | Worn bearings | Check and replace if necessary. |

## PREVENTATIVE MAINTENANCE

This pressure washer was produced with the best available materials and quality craftsmanship. However, you as the owner have certain responsibilities for the correct care of the equipment. Attention to regular preventative maintenance procedures will assist in preserving the performance of your equipment. Contact your Shark Pressure Washers dealer for maintenance. Regular preventative maintenance will add many hours to the life of your pressure washer. Perform maintenance more often under severe conditions.

| MAINTENANCE SCHEDULE | | |
|---|---|---|
| Replace Fuel Lines | | Annually |
| Pump Oil | Inspect | Daily inspect the oil level |
| | Change | After first 50 hours, then every 500 hours or annually |
| Clean Burner Filter | | Monthly (More often if fuel quality is poor) |
| Remove Burner Soot | | Annually |
| Burner Adjustment/Cleaning | | Annually |
| Descale Coil | | Annually (More often if required) |
| Replace High Pressure Nozzle | | Every 6 months |
| Replace Quick Connects | | Annually |
| Clean Water Screen/Filter | | Weekly |
| Clean Float/Supply Tank | | Every 6 months |
| Replace HP Hose | | Annually if there is any sign of wear |
| Grease Motor | | Every 10,000 hours |
| Replace Burner Nozzle | | Annually |

## OIL CHANGE RECORD

| Date Oil Changed Month/Day/Year | Estimated Operating Hours Since Last Oil Change |
|---|---|
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| Date Oil Changed Month/Day/Year | Estimated Operating Hours Since Last Oil Change |
|---|---|
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# HPB SERIES PRESSURE WASHER

# WARRANTY

## SHARK LIMITED NEW PRODUCT WARRANTY
## PRESSURE WASHERS

### WHAT THIS WARRANTY COVERS

All SHARK PRESSURE WASHERS are warranted by SHARK to the original purchaser to be free from defects in materials and workmanship under normal use, for the periods specified below. This Limited Warranty is subject to the exclusions shown below, is calculated from the date of the original purchase, and applies to the original components only. Any parts replaced under this warranty will assume the remainder of the part's warranty period. This warranty applies to the original purchaser and is not transferable.

### LIMITED LIFETIME PARTS WARRANTY:

Components manufactured by SHARK, such as frames, handles, coil wraps, float tanks, and belt guards. Forged brass pump manifold. All heating coils will have a three year warranty. Internal components on the oil-end of all pressure washer pumps will have a seven year warranty.

### ONE YEAR PARTS WARRANTY:

All other components, excluding normal wear items as described below, will be warranted for one year on parts. Warranty on these parts will be for one year regardless of the duration of the original component manufacturer's part warranty.

### WARRANTY PROVIDED BY OTHER MANUFACTURERS:

Motors, generators, and engines, which are warranted by their respective manufacturers, are serviced through these manufacturers' local authorized service centers. SHARK cannot provide warranty on these items.

### WHAT THIS WARRANTY DOES NOT COVER

This warranty does not cover the following items:

1. Normal wear items, such as nozzles, guns, discharge hoses, wands, quick couplers, seals, filters, gaskets, O-rings, packings, pistons, pump valve assemblies, strainers, belts, brushes, rupture disks, fuses, pump protectors.
2. Damage or malfunctions resulting from accidents, abuse, modifications, alterations, incorrect installation, improper servicing, failure to follow manufacturer's maintenance instructions, or use of the equipment beyond its stated usage specifications as contained in the operator's manual.
3. Damage due to freezing, chemical deterioration, scale buildup, rust, corrosion, or thermal expansion.
4. Damage to components from fluctuations in electrical or water supply.
5. Normal maintenance service, including adjustments, fuel system cleaning, and clearing of obstructions.
6. Transportation to service center, shop labor charges, field labor charges, or freight damage.

### WHAT YOU MUST DO TO OBTAIN WARRANTY SERVICE

While not required for warranty service, we request that you register your SHARK pressure washer by returning the completed registration card. In order to obtain warranty service on items, you must return the product to an Authorized SHARK Dealer, freight prepaid, with proof of purchase, within the applicable warranty period. If the product is permanently installed, you must notify your Authorized SHARK Dealer of the defect. The Authorized Dealer will file a claim, which must subsequently verify the defect. In most cases, the part must be returned to SHARK freight prepaid with the claim. For warranty service on components warranted by other manufacturers, the Authorized Dealer can help you obtain warranty service through these manufacturers' local authorized service centers.

### LIMITATION OF LIABILITY

SHARK'S liability for special, incidental, or consequential damages is expressly disclaimed. In no event shall SHARK'S liability exceed the purchase price of the product in question. SHARK makes every effort to ensure that all illustrations and specifications are correct, however, these do not imply a warranty that the product is merchantable or fit for a particular purpose, or that the product will actually conform to the illustrations and specifications. **THE WARRANTY CONTAINED HEREIN IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.** SHARK does not authorize any other party, including authorized Dealers, to make any representation or promise on behalf of SHARK, or to modify the terms, conditions, or limitations in any way. It is the buyer's responsibility to ensure that the installation and use of SHARK products conforms to local codes. While SHARK attempts to assure that its products meet national codes, it cannot be responsible for how the customer chooses to use or install the product.

SHARK PRESSURE WASHERS
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